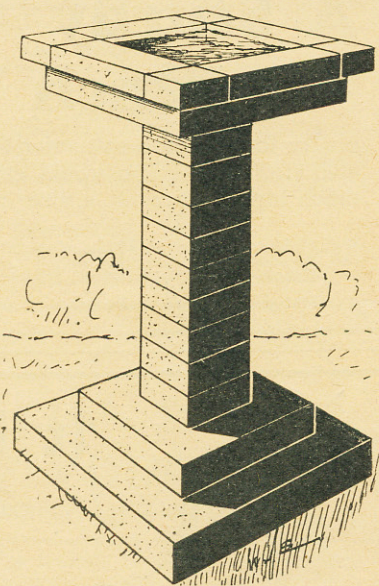
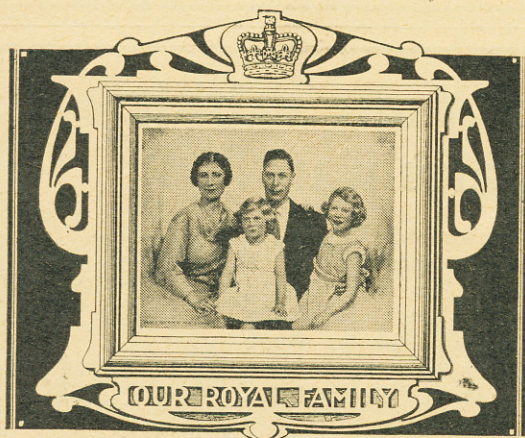


# Hobbies

## WEEKLY

CORONATION  
FRAME AND  
PICTURE



A SIMPLE  
BIRD BATH

May 15th. 1937

2<sup>D</sup>

Vol. 84. No. 2169

THE FRETWORKER'S AND  
HOME CRAFTSMAN'S JOURNAL

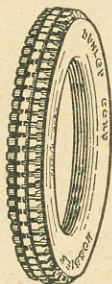


## For the MODEL - MAKER TOY WHEELS

### RUBBER TYRES

Just like the  
real thing.  
To fit 2in.  
diameter  
wheels.

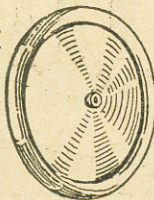
Price  
4d. each.  
Postage 1½d.



### ALUMINIUM BRASS

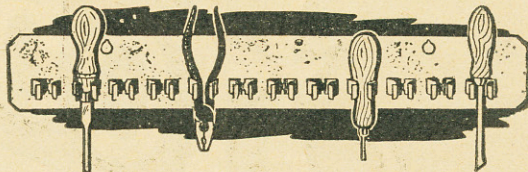
BUSHED  
1 in. 1½d. each.  
1/3 per doz.  
1½ in. 2d. each.  
1/9 per doz.

TIN  
NOT BUSHED  
1 in. 1d. each  
9d. per doz.  
1½ in. 1½d. each.  
1/3 per doz.



**HOBBIES LTD., DEREHAM AND BRANCHES**

## All-Steel Tool Rack



Hobbies Ltd.,  
Dereham and  
Branches.

Twelve clips strongly fixed on a steel wall-plate. To hang on the wall or in tool cupboard. In two sizes: 13in. 1/3; 18in. 1/9. Post 4d. & 6d.

## A Sturdy Bench Vice

Notice the rugged construction . . . the renewable steel jaws. You would expect to pay a much higher price for a vice of this quality.

2½ in. Jaw

Price 6/9

Postage 10d.

2½ in. Jaw

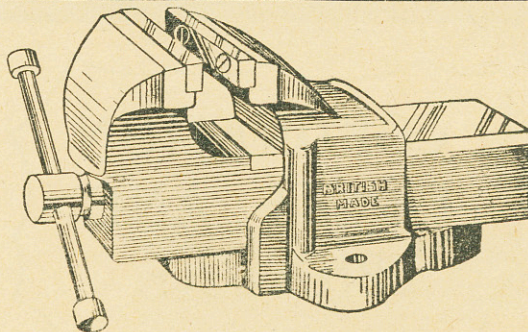
Price 7/9

Postage 1/-

3 in. Jaw

Price 9/9

Postage 1/-



Hobbies Ltd., Dereham and Branches

## It Reflects Your Ability as a Craftsman . . .



"I say, Jim—you've made a lovely job of that cabinet! Hasn't the wood come up nicely? So smooth.....so good looking!" Yes, it's surprising what a difference Hobbies wood makes to a job. It is worth every penny you pay for it. Remember... Hobbies wood is planed to satin smoothness, and to a definite thickness. Use it on your next job.

### Specimen Pieces

Eight pieces, each about 3ins. square, of the most popular kinds, showing grain and colour quite plainly. You'll find them useful for reference. If you would like a set, send 8d. to Hobbies Ltd., Dereham. Ask for a price list of Hobbies wood at the same time.

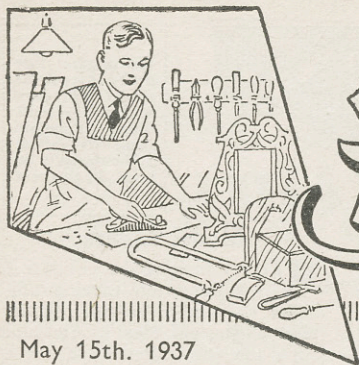


Your guarantee  
of a square deal

# HOBBIES WOOD

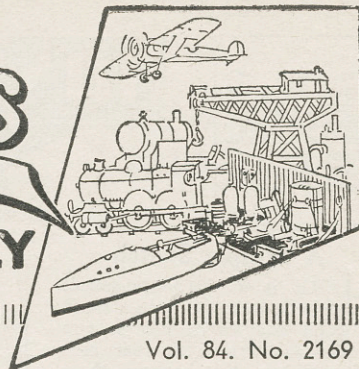






# Hobbies

## WEEKLY



May 15th. 1937

Vol. 84. No. 2169

**G**REAT news for next week, people! Something you've been worrying me for now some little time. A Folding Boat! Now isn't that grand? A practical piece of work you can make and take off to the river behind your bike on a little trailer, without trouble.

**W**HAT did you say—you wanted a dinghy or a punt? Well, well, fancy that! Because I have an article on both those in hand now and am going to put them into our good pages very shortly. So shortly indeed that you must not miss a single issue! Now look out for further items.

**B**Y the way, if next week's Folding Boat is a little bit too difficult, what about making the small novel one-piece Pen Rack which can be cut and made with a fretsaw from the patterns supplied on page 163.

**H**ERE is a suggestion for those who want to make their Coronation Coach riders more real. Cut up a round clothes peg to make as a jockey, with the side pieces as legs and the top shaped for a cap, and a face painted under. Similarly arms, etc. can be added to make a loose and realistic figure. The suggestion, by the way, comes from J. Jackson, of Rochdale, who has actually done it.

**I** FIND there was a very large number of entrants in our recent Kolynos Competition, and the list of winners is given in our advertisement pages. Owing to its success the prize money was increased by over £5 and prizes have now all been despatched. As a matter of interest the words which had to be found were — Brush, Teeth, Daily, Use, Pure, Tube, Kolynos, Cleans, Whitens, Best.

**I**F you have a camera you will be interested in the photographic articles which will be appearing now very frequently. They are definitely

helpful to everyone because it is surprising how many use their cameras without a thought beyond the taking of a snap. You can improve your pictures so much merely by remembering a simple point of composition, or light, or time. Then you can be real proud of your pictures and not have to offer them with a laughing apology—"Oh, I cut half his head off," or something of that sort. Then, when you have got such good and worthy pictures you can enter one of the many competitions and so make your pictures actually pay. There is, by the way a simple competition now being run by Johnson & Sons, Ltd. of Hendon, London, N.W.4, and readers should write and ask for particulars. There is no entry fee, but quite a number of money prizes worth having.

**I** OFTEN wonder what really is the range of ages of our readers and workers, because I was interested quite recently in the fact that we have been receiving orders from Mr. T. Graham-Gribble of London, N.5, who at the age of 86, still takes a great interest in fretwork. He took up the hobby after his retirement from business and has been an enthusiastic worker ever since. Unfortunately, I learn from Mr. Graham-Gribble's last letter, that he had to enter a Nursing Home and had been obliged to "warehouse" his fretsaw for the time being. I am sure we all hope his stay will be a short one so he may return to his delightful and happy hobby with his previous keenness. Good luck to you Mr. Graham-Gribble.

### CONTENTS

#### GIFT DESIGN CHART—Coronation Frame

Hints and Tips	146
Coronation Picture and Frame	147
Moving Figure Wind Indicator	149
Bird Bath in Cement	150
Details for Model Galleons	151
Garden See-Saw	152
Garden Tool Holder	153
Keeping Pigeons	154
Working Figure Patterns	156
Automatic Cigarette Delivery Clock	159
Organic Chemistry	161
One-Piece Pen Rack Pattern	163
Cycling tips for Camping	164
Nature Notes	164
A Pipe Rest	165
New Stamp Issues	167

#### Next Week's Design—Tea Tray and Toast Rack

Correspondence should be addressed to: The Editor, Hobbies Weekly, Dereham, Norfolk, and a stamp enclosed with the reply Coupon from Cover iii if a reply is required. Particulars of Subscription rates, Publishing, Advertising, etc. are on cover iii.

**H**OW'S this for a winner? "With the Lord Mayor's Coach I have won four 1st Prizes in various shows. Besides that I have won three Firsts with the model of St. Paul's and a 1st and 2nd Prize with the 'Queen Mary'." Atherton of Cheltenham told me that when he wrote for the Coronation Coach particulars. Every design a winner, you see.

The Editor



Send your own simple tips to The Editor, Hobbies Weekly, Dereham, Norfolk. Keep them short and add rough pencil sketches if possible.

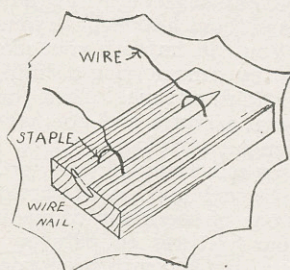
# HINTS AND TIPS



For original Tips published the sender will receive a Hobbies Self-filling Fountain Pen. We cannot acknowledge or print all tips sent.

## A Simple Switch

HERE is a tip for a simple light switch. Obtain a block of wood and knock into it two staples so a three or four inch nail will just slide between them



with about half an inch to spare each side. Break the circuit and attach the two ends of wire to the two staples. When the nail is pushed from one staple into the next the circuit is completed and the lamp will light.—(R. W. Houghton).

## Invisible Ink

IF you want to make invisible ink, take a few onions and a glass. Squeeze all the juice from the onions into the glass and then dip a pen into it and write on some paper. When the paper is warmed by the fire the writing will show.—(R. Garrett).

## Stamp Moistener

FOR those that are interested in collecting stamps, here is a useful stamp moistener. Take a small metal screw cap from any bottle and press into the cap a piece of sorbo rubber. Round off the protruding section neatly.



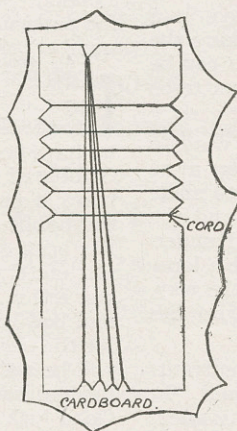
The cap may be painted if desired, but will look quite well plain. The sorbo rubber may be obtained from an old sorbo rubber ball. To use, the rubber is moistened and it will retain moisture for some considerable time.—(J. Allen).

## Realistic Roofing

SOMETIMES a model garage or out-building needs corrugated roofing. The corrugated paper used for packing chocolates, coffee essence, etc. will be found very useful for this purpose, and looks very realistic.—(H. Tipling).

## Ship Shrouds

OVERCOME the difficulty of making shrouds for model ships by the method shown in the diagram. In this way, using fine



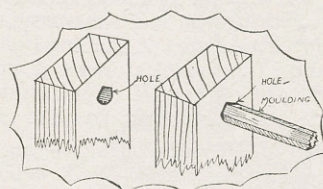
string or twine wrapped round a piece of card you have the advantage of making back and front the same.—(E. Lee).

## Lino on Rough Floors

WHEN laying linoleum on rough floors, wood or stone, put down in the first place a liberal layer of ordinary sawdust taking care that there are no chips of wood or any other rubbish among it. The sawdust may be spread with a lath of wood. The lino is then put on the top of this and fastened in the usual way. The sawdust will then work its way into the hollows and a perfectly level surface will be obtained.—(J. Barrow).

## Model Liners

WHEN making model liners it is a long job carving lifeboats so here is a tip. Get a piece of  $\frac{3}{4}$  in. oak 6 ins. by lin. and cut a hole with a fretsaw the same shape as in sketch. Then get a



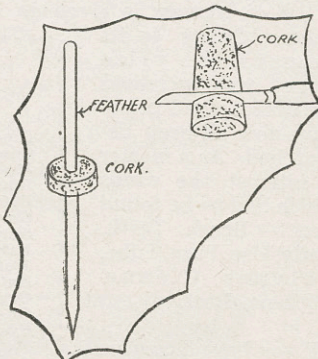
piece of dowelling long enough for all the boats. Taper one end for  $\frac{3}{4}$  in. Insert in hole and tap through gently so as not to split dowel. Cut off the length of the boat and trim the ends to a point.—(Heeley).

## Cleaning Pewter

THE article should be washed with warm soapy water, and the more inaccessible corners scrubbed with a small soft brush. Dry thoroughly, and polish briskly with flannel or velvet.—(J. Logue).

## Simple Float

THIS is a simple way of making a fishing float. First thing which is needed is a feather and cork. Strip the lower end of the feather as in sketch until you have a quill. The next thing is a



cork of which you carefully cut through the centre as in the diagram. Bore a hole just big enough to slip the quill through and your simple fishing quill is completed.—(John Reynolds).



# CORONATION PICTURE AND FRAME

THE picture frame shown on this page is the one which can be made from this week's sheet. It also has an alternative for those who do not wish to make it up as a Coronation Frame, so that the design is doubly worth having as being of use both now or later on.

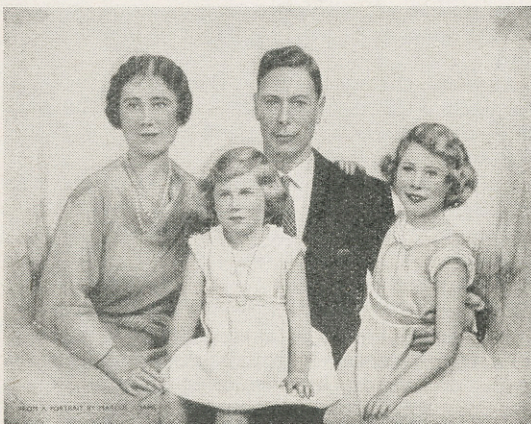
It is quite a practical size, holding a picture 7½ ins. by 6 ins. being suitable for an ordinary photograph or a special picture in colour. So far as the Coronation Frame is concerned, the design incorporates some appropriate details which are provided as overlays.

Hobbies also have purchased a special group of the Royal Family, beautifully printed in colour, and one of the best undoubtedly which is procurable. This is of the size mentioned, and just fits in the frame.

Above it is fitted a wooden background the shape of the crown, whilst a gilt hand-painted metal ornament of the crown itself is fixed on top of that background. Below the picture is the wording "Our Royal Family" which is also cut as an overlay and glued to the background.

## A Plain Alternative

The design of the main back is shown on the sheet as an ordinary frame, and it is only by the additions of the special overlays that it is converted into a typical Coronation design. If you are using it as an ordinary piece of work, the design of the back is cut as shown. If, however, you are doing it for the Coronation, then you should omit the fancy overlay at the bottom inside the dotted



The excellent picture in colour supplied by Hobbies specially for this frame



lines. This part is thus left solid so the wording overlay can be glued thereon.

Almost any fretwood is suitable for a piece of work such as this, but, of course, as usual the overlays should be cut in some distinctive timber which will stand up in stronger relief from a contrasting background. Thus, if the backboard is dark wood, then the overlays should be in white-wood or vice versa.

The parcel supplied by Hobbies contains boards already planed and we have followed out dark wood for the back and whitewood for the overlays. In the parcel, too, is the fancy moulding which stands up round the picture itself. This is the flat No. 18 as illustrated in the Hobbies Handbook.

The main work is on the back itself and for this is required a piece of wood 12 ins. wide and 13 ins. long. Paste the design down and cut it out according to the pattern. The outline can be cut first, then the interior frets and finally the large opening in the centre.

If you propose using the piece of board which comes out, as a backing for the picture, then make the drill hole in one of the corners so it will not be seen. Just mark a pencil line to cross the cut on the back so the piece can be returned into the same position without any trouble.

## The Glass

Hobbies are not supplying the glass for this particular frame, but it is usually obtainable from any glazier or ironmonger for a few pence. Tell them what you require it for because it wants to be as light as possible. Have the glass at hand, too, before actually cutting the opening, and lay it in place to ensure it will fit when the part has been cut out.

Having cut the frame, clean the whole thing up thoroughly both back and front with glasspaper. Keep this flat on a piece of wood or in a proper glasspaper block, in order that the edges may not be thinned down. Notice, too, that all the curves and frets are correct, and if not, clean them up as required with some of the small fretwork files.

The next job is to get out the four pieces with



mitred ends which form the frame to hold the glass in place. Cut the ends very carefully so the parts bed together nicely and with a join that is almost indistinguishable. If you are unable to cut the corners dead straight with a fretsaw, then use a small tenon saw for the purpose.

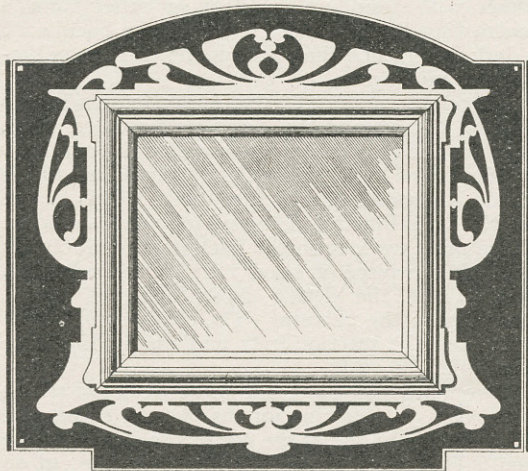
#### Cleaning Hints

Clean up as before but do not rub the ends of the wood or you will alter the shape and joint of the frame itself. Lay the parts in place round the central opening and see there is an equal overlap all round.

Make a light pencil mark on the back where the parts lie, then take them away to put the glue on the back face. Rub the glue over thinly then replace on the back, putting them down to the pencil marks previously made, and holding there firmly in place.

Put another board on all four parts and weight it down until the glue is set. Now is the time to go ahead with the Coronation overlays—while the other parts are getting firm.

The outline for the crown is a plain straight-forward piece and when cut and cleaned is glued on the back immediately above the surrounding frame.



*The Frame with plain decorations*

The wording comes beneath this frame and butts up close at the long straight edge at the top. Be particularly careful with the wording itself to see that every letter is the same height and has the same thickness in its various parts. Take a good deal of pains over this because the wording will look very bad if some of the letters are larger than others or not straight and true.

This overlay, by the way, can be treated in colours to make it stand up from the rest of the work, and this should be done before gluing it in place. The lettering, for instance, can be painted in gold with a red surround or you can have black and gold or similar pleasing colours.

There is a wide range of suitable enamels supplied at 2d. a tin by Hobbies, and these are quite useful and ready to use.

The lettering also will stand up much stronger

if it has a background of silver paper or linen cloth, or some fancy material. Cut it a little larger than the space occupied by the letters and glue it down behind the opening shown. A piece  $\frac{3}{4}$  in. wide and  $7\frac{1}{2}$  ins. long will be just large enough to go behind the lettering in this way. Glue this backing

#### MATERIALS SUPPLIED

##### FRETWOOD.

*For making this picture frame we supply a parcel of dark wood and whitewood, with sufficient No. 18 Moulding for 2/- post free 2/6*

##### FITTINGS.

*Handsome embossed enamelled metal crown 6d., striking picture in colour of the Royal Family, 3d., postage 3d.*

*A complete set of wood, crown and picture will be sent post paid for 3/-*

on and paint the wording before fixing the whole overlay to the back beneath the picture frame portion.

By the time this work has been done, the glue should have fixed the flat rim round the glass opening, and we can proceed with the cutting and fitting of the small fancy moulding. The position of this is shown by the dotted lines and the sectional drawing on the pattern of the frame rim overlays.

Of the moulding itself two pieces are required  $9\frac{1}{2}$  ins. long and two pieces 8 ins. long. The longer pieces are actually cut with their greatest length  $9\frac{1}{8}$  ins. and the shorter pieces are  $7\frac{3}{4}$  ins.

Cut these quite true by marking off the ends to an angle of 45 degrees, then lay them round temporarily to test out that a good corner joint is made. See they fit close to each other and at an equal distance from the edge of the backing overlay.

When this is done, make a pencil mark here and there along the edge so they can be returned after glue has been added to the back of each piece.

#### Adding the Picture

The frame is now ready for its picture which is added behind the glass. Put a piece of thin card behind the picture itself, then add the backing board which came out. As, however, this board will project beyond the back of the frame, it may be as well to get a thinner piece of wood or to fill out the space with blotting paper or folded brown paper.

Anyhow, the space of the thickness of wood in the back is filled until it is level with the back itself, then finally a larger piece of paper is pasted over to hold it all in place.

This last piece of brown paper is  $7\frac{1}{2}$  ins. wide and  $8\frac{3}{4}$  ins. long. It is pasted over the whole surface after having been dampened slightly with a sponge. By making it damp before putting it in position the whole thing will shrink when it gets dry and be perfectly flat and drum tight.

The metal crown is a striking little piece of work and handsomely embossed. It is fixed by means of two or three small fret pins. Drill a hole for them through the metal first with a fret-work drill, taking care not to press sufficiently heavily to press out any of the embossed portion.



# MOVING FIGURE WIND INDICATOR

**I**N our issue, dated April 24th (price 2d.) we gave particulars and full size patterns for a novel mechanical wind vane as illustrated here. Now we can complete it by making the figures.

All parts of the three moving figures for the wind indicator, previously described, are shown full size on the centre pages. Cut parts A and A4 of  $\frac{1}{2}$  in. thick wood. Cut two of A1 from sheet brass and fix either side of A where shown by dotted lines. Fix these with  $\frac{1}{4}$  in. brass screws.

The body of the figure, A4 is placed between the brass pieces A1, and a brass nail pushed through the holes and soldered.

The arms, A2 and A3 are cut from brass and fitted to either side of A4 by pushing a brass nail right through and again soldering. Fig. 1 shows these details.

All parts marked B are for the second figure and are fitted together similarly. These figures should be screwed to the platform, either side of the space left between parts J, previously mentioned.

The saw handles are placed between the hands of the figures and a small round-headed brass screw driven through the holes.

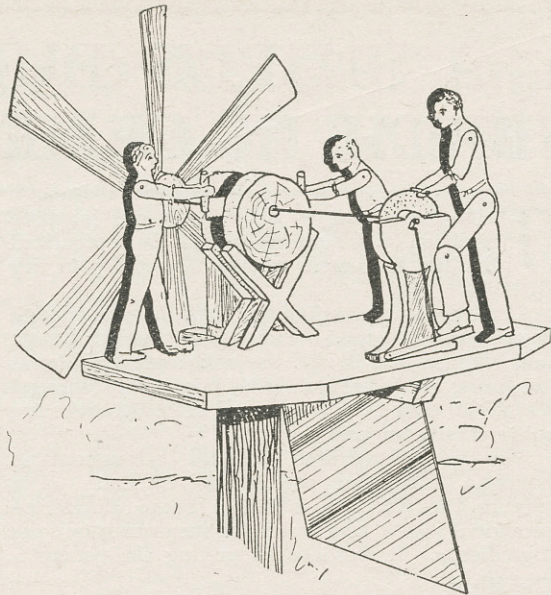
## Easy Movement

Set the figures so that the saw moves easily enough when the spindle is rotated. The best position will be near the edges of the platform. Get the position of the figures correctly before screwing them in position.

For the grinder figure, cut part C from  $\frac{1}{2}$  in. thick wood and parts C1 and C2 from brass. These are pivoted to C by a brass nail through the holes as for the other figures. Cut C5, also of brass, push through the slits in the hands of the figures, and there solder.

Cut C3 and C4 from brass. Pivot the former to C by means of a small round-headed brass screw, with a washer each side.

This, in turn, is fixed to C4 with a small rivet,



clenching it as in Fig. 3. Don't clench tightly, the joint must be free enough to move easily. The end hole in C4, the treadle part, is pivoted by a screw to the grindstone stand, where the arrow is shown, and the figure screwed to the platform. All three figures, by the way, might be supported at the rear by a small wooden strut piece.

Connect a stiff wire rod to the crank and hole in treadle, so that as the grindstone rotates, the figure will move as in the act of treadling. A little care and attention to these details and all the figures will move smoothly and lifelike. The brass portions can all be cut easily enough with a metal cutting fretsaw.

## Painting and Finishing

All the parts of the wind indicator should be well painted to stand the weather. The figures might be enamelled in bright colours.

This job, by the way, is best done before the parts are put together, otherwise they may stick or at least work sluggishly.

If it is possible for the reader to do a little carving, the figures can be greatly improved, especially about the features.

If this is not in the reader's line, they must be cut as shown to pattern, and the features and details painted on with a fine brush to the best of the reader's ability. Just one final point, if the model swings sluggishly, due to the weight of the figures, etc. upsetting the balance, weight with a piece of lead screwed to the end of A, just against the driving wheel.

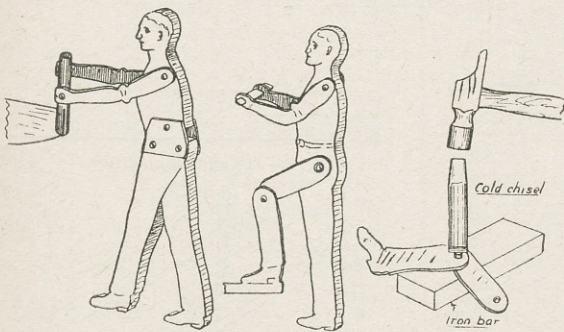


Fig. 1

Fig. 2

Fig. 3

Full size parts on pages 156 & 157

## How to make a Folding Boat next week



# A SIMPLE BIRD BATH IN CEMENT

THIS bird bath is a by no means inartistic addition to the garden and will be appreciated by our feathered friends, especially in dry weather.

The ledge, surrounding the bath, is wide enough to accommodate food, which is a further attraction, and though one is apt to look reproachfully at the birds, when they do a little brigandage amongst the seeds, their note of song and amusing antics are more than compensation.

The bath illustrated is built throughout in concrete and need present no difficulty. For mixing the concrete, a rough board should be provided, also a box or tin for measuring out the ingredients. A word as to mixing the concrete.

## The Mixture

This is a 1, 2, 3 mixture, in other words 1 part cement, 2 parts of sand and 3 parts coarse aggregate, measured off in bulk with the addition of  $\frac{3}{4}$  part water. The aggregate can be  $\frac{3}{8}$  shingle, which can generally be bought from a builder's yard or any other suitable material which may be particular to the locality, such as marble chippings or broken stone, so long as it is passed through a  $\frac{3}{8}$  in. sieve.

In mixing, first dump a measure of cement on the board, then two of sand and turn over. Add three of aggregate and mix until the whole is uniform in colour.

Pour the measure of water into a can, preferably fitted with a fine rose, and water the lot, turning it over two or three times until moist all through, then into the mould with it.

Fig. 1 shows a section through the bird bath, from which it will be seen that its structure consists of moulded slabs 2 ins. thick, cemented together. For slab A, make up a frame 15 $\frac{1}{2}$  ins. sq. inside measurement with 1 in. by 2 in. strips of

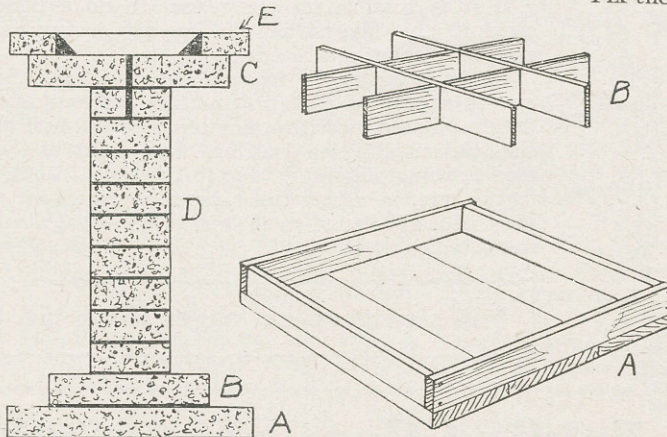


Fig. 1—Side view of parts

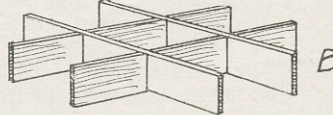


Fig. 2—The moulding shape and partitions above

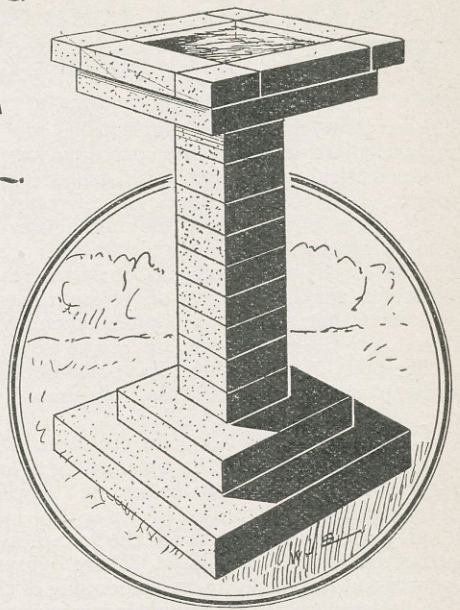


Fig. 3—The slotted partitions

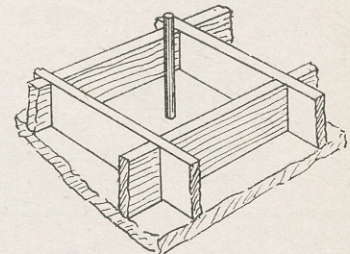


Fig. 4—Forming the centre base

wood. Screw them together at the corners so as to facilitate taking them apart afterwards.

Make up a flat board bottom to the frame, as in A, Fig. 2. Coat the inside of this mould with whitewash or oil to prevent the concrete sticking to it, then fill with concrete, tamping it well in the corners to get a sharp mould, and levelling the surface with a straight-edged slip of wood.

Leave for a day or two, then take the mould apart and leave the slab for a week to season. During this period it should be kept damp, either by a covering of wet sacking or spraying it occasionally with water. The given treatment applies to all the slabs used for this bird bath.

## The Pillar Portion

Clean mould A, it can then be used to cast the nine slabs forming the pillar, D. First cut four slips of  $\frac{1}{4}$  in. by 2 in. fretwood, 15 $\frac{1}{2}$  ins. long and divide each into three by the  $\frac{1}{4}$  in. by 1 in. slots shown in Fig. 3.

Fix them together, as in B, Fig. 2 and drop into



the mould. In the centre division of the nine bore a hole and fix therein a 2in. length of  $\frac{1}{2}$ in. dowel rod, as shown in Fig. 4. Oil the mould well and fill each division with concrete. Leave to set as before, then divide and stack the nine slabs until ready for use.

The hole, which will be left in the centre slab, is for a purpose to be explained later.

The sides of the mould should now be reduced in length to form slab C. This is 12 $\frac{3}{4}$ ins. sq. inside measurement.

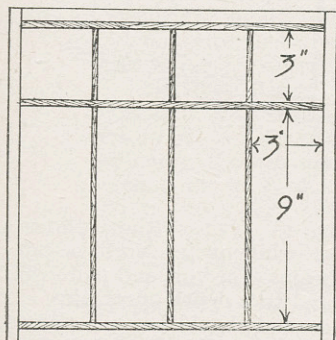


Fig. 5—Plan of partitions for the top slabs

Stick a piece of dowel rod in the centre hole and then cast slab C. This done, the same mould, with the centre hole stopped up, will serve for the mould to cast the top slabs, E.

Cut six strips of  $\frac{1}{4}$ in. by 1 $\frac{1}{4}$ ins. fretwood, 12 $\frac{3}{4}$ ins. long,

and slot them together to divide the interior of the mould, as in plan Fig. 5. Oil and fill up with concrete as before. This will provide four slabs, 3ins. sq. and four 3ins. by 9ins.

Clean out the mould once again and cut down for slab B, which is 9ins. sq. inside measurement. Cast this and then wait until all are properly seasoned before cementing.

By this method one mould is used for the lot, but as this entails some waiting each time those in more of a hurry can make up the moulds separately and cast all the slabs at once.

Having selected the place for the bird bath, make up a cement mortar of 1 part cement and 3 parts of sand, with not too much water. Lay slab A in position, take slab B, turn over and apply a  $\frac{1}{4}$ in. layer of cement, then press down in the centre of A. Scrape off the superfluous mortar with a trowel and smooth this and subsequent joints as neatly as you can.

#### Assembly

The pillar slabs are similarly cemented together, and care should be taken to fix them accurately over each other to get a straight, upright pillar.

Only as much cement as is necessary for joining up should be used and each should be tested, as laid, with a strip of wood against the sides. The last of these slabs will be the one with the hole in the centre.

Fill this hole with cement and stick in it a 3 $\frac{1}{2}$ ins. length of iron rod, say  $\frac{3}{8}$ in. dia. Now cement slab C on top, the centre hole in this fitting over the iron pin rod beneath. Test this slab to see it beds level.

Slabs E are cemented round, as seen in the general view of the bird bath, to leave a space in the centre 9ins. sq. Fill up the interior angles with a fillet of cement, also the hole in the centre, as shown in black, Fig. 1, and the job is done.

Change the water in the bath several times during the first day or two before letting the birds have free access to it.

## Details for Model Galleons

MANY readers make up our "Golden Hind" model so these notes will probably be of interest. They are offered by a reader who is an expert on galleons and historic ships and the points are worth bearing in mind.

In the most authentic descriptions of the plan and decoration of this vessel, recourse has been had to contemporary sketches and information. Colour schemes usually attributed to this vessel have invariably been copied from a ship of later date, i.e., the "Elizabeth Jonas." Our article and notes on the decoration of the latter vessel are, therefore, equally suitable for the "Golden Hind," the only differences of any importance between the two vessels consisting of the omission of the foretop and maintop sails and rear mizen mast when designing the "Golden Hind."

#### Lanterns and Guns

The provision of two stern lanterns is correct but old records indicate that they were far more likely to have been in the form of cressets, i.e., iron baskets on lantern brackets which were filled with tow soaked in oils or tar. The vessel

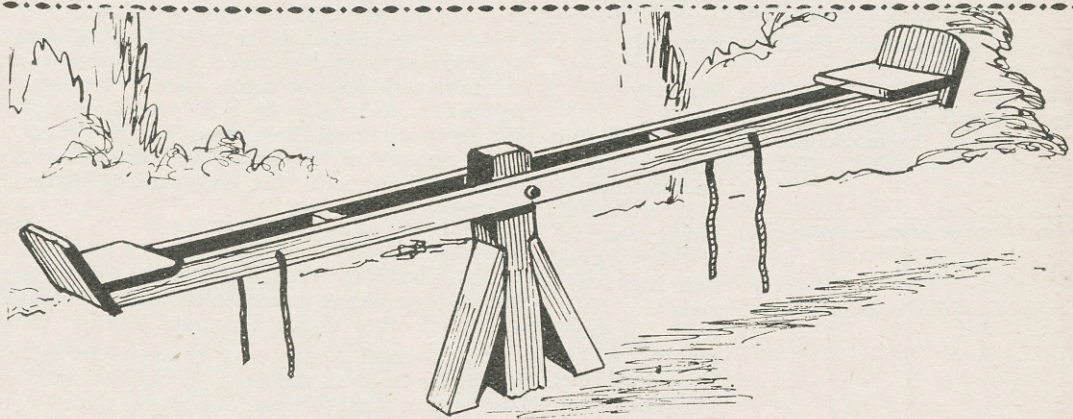
is known to have had a rather steep camber (midships to bulwarks) on her maindeck.

The deck guns are nearly correct and quite effective if made as instructed in the "Elizabeth Jonas" omitting the stepping of the back slope of the trunnion blocks. Gun carriages in that period do not seem to have possessed wheels. Dead-eyes should, if true to period, be fashioned heart shape. Provision should be made for pin-rails to secure all sail ropes and these rails with pins (for actual use in the model) at the front of all decks.

The sails were not *all* decorated as many model-designers seem to imagine. Decoration of sails was confined to the foresail and mainsail and consisted of a red cross (perhaps as in a "Golden Hind") on the mainsail and a tudor rose in dull colours on the foresail. The letters E.R. may have accompanied this but it is not certain. Pennons were not as long as shown in many models. Stern-chaser guns were not built into the "Golden Hind" as it was Drake's boast that he never needed any. Such guns were only used when being chased by an enemy.



# A GARDEN SEE-SAW



**A**N outdoor see-saw always affords plenty of fun, and we tell here how to construct one for your garden. The whole thing is simple in construction and easy to erect. There are two distinct parts to make up, the post with its struts, etc., and the seats and the beam. The latter is pivoted to the upright post by a strong bolt with nuts and washers so it can be taken apart and stored.

The construction of post can be gathered from the side view Fig. 1 and from the details at Fig. 2. The sole plate (A) is 3ft. long by 3ins. wide by 3ins. thick, and recesses are to be cut in 2ins. from the ends, into which are framed the struts C.

These are 3ft. 9ins. by 3ins. square, and the ends are cut to the shape shown to fit accurately into the post and plate. The post (B) is of 6ins. by 3ins. stuff, 4ft. 8ins. long. The bottom of the posts has a stub tenon (Fig. 2) to fit into a corresponding mortise cut in the sole plate. Get the plate and the post together first before cutting the struts.

These, after just cutting off to length, are laid in position and the bevels marked and cut with a tenon saw. Screws should be driven in as fixing for all parts, and when together the hole for the pivot bolt should be bored 6ins. down from the top.

Fair iron plates are wanted, measuring about 5ins. by 3ins., and drilled for two screws each and

one bolt hole (Fig. 2). Two of these plates are screwed to the post, while one each will be put on the insides of the beams. The post and plate will be sunk into the ground to a depth of 2ft. 2ins. All the wood below ground should be well creosoted to preserve it, and the top part might be painted.

The beam for the seats is made up from two lengths of 4ins. by 2ins. stuff, the length being from 9ft. to 12ft. long, according to choice. The two parts are held together by four spacing pieces of 4ins. by 2ins. wood housed  $\frac{1}{4}$ in. into the beams (Fig. 3). Each piece is  $4\frac{1}{2}$ ins. long and nailed through from the sides. Before assembly, the iron bearing plates must be screwed on, and to do this, the beam must be divided exactly into two and the bolt holes cleanly bored through both pieces.

Each of the seat boards is 10ins. by 9ins. by  $\frac{1}{2}$ in. thick, chamfered to fit up against a backing board 10ins. by 11ins. by  $\frac{1}{2}$ in. The seats are screwed to the ends of the beams with the ends cut to a slope to take the backs. Three or four long screws will securely hold the seat backs in place, while small iron angle brackets screwed on to the seat and to the back will make it perfectly safe.

The bolt forming the pivot should be  $\frac{1}{2}$ in. diam., and sufficiently long to allow two nuts to be screwed on when pushed through.

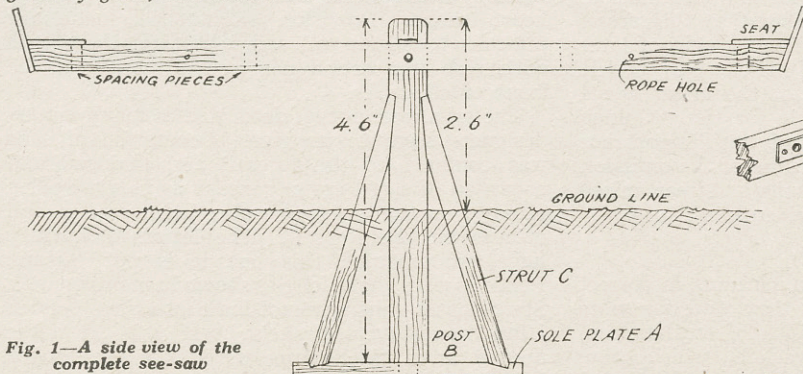


Fig. 1—A side view of the complete see-saw

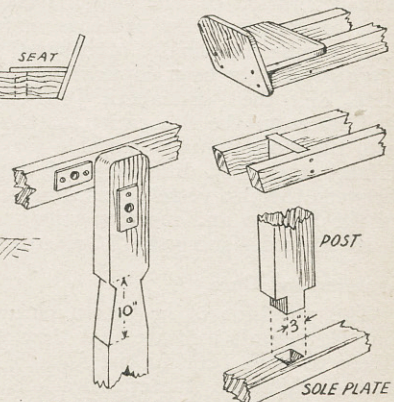


Fig. 2—The beam fixing

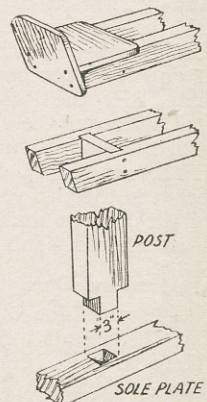


Fig. 3—Detail of seat and post



# A GARDEN TOOL HOLDER

**H**OW many readers, we wonder, have at some time or other envied the fellow with a big garden and plenty of room for a garden shed? For those whose space is limited, here's the next best thing! A tool shelter to fix on any convenient bit of wall.

A straightforward piece of work, within the scope of any handyman, it has accommodation for all the kit a small garden owner uses, and saves the bother of bringing it all indoors when finished with.

Red Deal is an excellent wood to use, and not expensive. The measurements given have been specially worked out so that in most cases you can use an even number of pieces of 7 inch tongued and grooved floor-boarding. This saves sawing, and simplifies the construction.

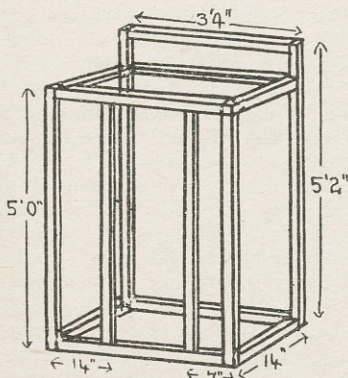
## The Frame

A frame of  $1\frac{1}{2}$  ins. square stuff is first constructed, with two strips of  $1\frac{1}{2}$  in. by  $\frac{1}{2}$  in. on the top of the sides to give the necessary slope to the roof. Two uprights are put in at the front for fixing the shelves to.

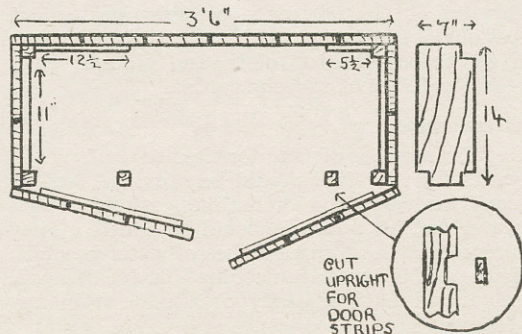
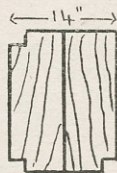
Six boards will be required for the back, and two for each of the sides and bottom. Screw on the side boards full length, then cut them off flush with the slanting pieces at the top. As the roof hangs over at the front, one board must be ripped down the centre to make up the necessary width.

## The Roof

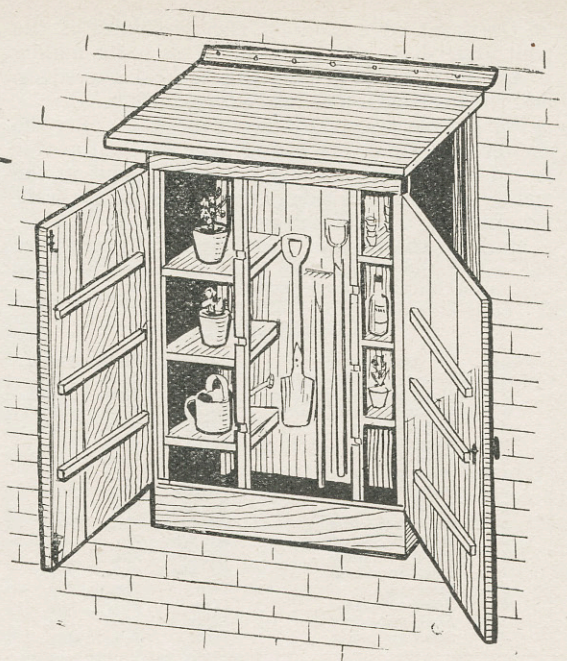
These  $2\frac{1}{2}$  boards are also cut 2 ins. longer than the bottom, for them to hang over at the sides. It will be seen that the dimensions of the frame allows for the back and front boards covering the sides, and for the side, front, and back boards covering the bottom. The roof, being cut out bigger, of course, covers all at the top. When screwing on these boards, see that no grooved edge comes on the outside, and where a tongue does, plane it off flush.



The general framework



A plan with dimensions and detail of shelves



Each of the doors is cut from three boards, with strips of 1 in. by  $\frac{1}{2}$  in. stuff on the back to hold the pieces together.

The length of the doors just allows for two 7 in. boards being screwed on the frame, one above and one below. For fastening the doors, two push-bolts can be fitted to the one on the left side, one at the top and one the bottom, on the inside. The two keepers are then put in a corresponding position on the cross boards above and below. The other door can then engage on to the bolted one by means of a knob and catch, or lock.

The shelves are two boards width on one side, and one board width on the other. They are all cut out at three corners, to fit the uprights provided for them in the frame. Pieces of 1 in. square stuff are screwed to the back and sides, for these shelves to rest on.

## Weather-proofing

A piece of roofing asphalt 6 ins. wider and 2 ins. longer than the roof should be securely tacked on before the shelter is fixed on the wall. Lap it over



at the front edge, and let the remainder of the width over-hang at the back. This is for nailing to the wall. Lap it over and tack at the edges, and then the shelter is ready for painting.

Put at least six good plugs in the wall. Try the shelter up temporarily and arrange for the top of it to come just  $\frac{1}{2}$  in. below a horizontal joint in the wall. Mark the position of the shelter on the wall, for guidance when fixing permanently.

Mark on the back of the shelter the position of the wall plugs, then take it down, bore the holes

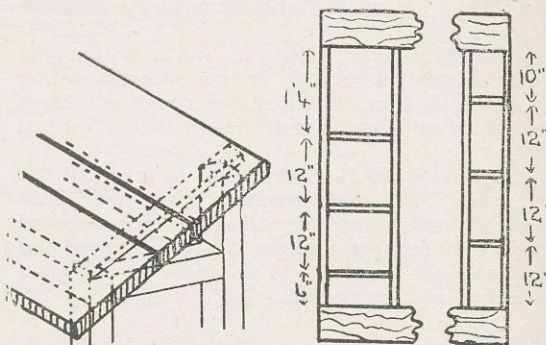
according to the marks, and start the screws from the inside. Now lift the shelter into its place again, and drive the screws home.

### Finishing Off

Nail the overlapping asphalt on to the wall, (plugging the latter if necessary), and screw in a few hooks to hang spade, fork, rake and suchlike tools on. As an extra precaution against damp, a strip of the asphalt material can be nailed down each side where the shelter touches the wall.

### CUTTING LIST

Pieces.	Description.	Length.	Width.	Thick.
4	Front uprights of frame	5ft.	1 $\frac{1}{2}$ in.	1 $\frac{1}{2}$ in.
2	Back uprights of frame	5ft. 2in.	1 $\frac{1}{2}$ in.	1 $\frac{1}{2}$ in.
5	Cross pieces of frame	3ft. 4in.	1 $\frac{1}{2}$ in.	1 $\frac{1}{2}$ in.
4	Sides of frame	14in.	1 $\frac{1}{2}$ in.	1 $\frac{1}{2}$ in.
2	Roof Slats	14 $\frac{1}{2}$ in.	1 $\frac{1}{2}$ in.	1 $\frac{1}{2}$ in.
6	Door Slats	1ft. 5in.	1 $\frac{1}{2}$ in.	1 $\frac{1}{2}$ in.
6	Back Boarding	5ft. 3in.	7in.	1in.
4	Side Boarding	5ft. 3in.	7in.	1in.
2	Front	3ft. 6in.	7in.	1in.
6	Door Boarding	3ft. 11in.	7in.	1in.
2	Bottom Boarding	3ft. 4in.	7in.	1in.
2	Roof Boarding	3ft. 8in.	7in.	1in.
1	Roof Boarding	3ft. 8in.	3 $\frac{1}{2}$ in.	1in.
9	Shelves	14in.	7in.	1in.
6	Shelf supports	11in.	1in.	1in.
3	Shelf supports	12 $\frac{1}{2}$ in.	1in.	1in.
3	Shelf supports	5 $\frac{1}{2}$ in.	1in.	1in.



Fitting the roof

Position of shelves

# POTTED HOBBIES

## KEEPING PIGEONS

**M**OST people fond of pets, keep pigeons at some time or another. In many parts of London, especially St. Paul's Cathedral, Trafalgar Square, and St. James's Park, the pigeons are the main attraction to thousands of people who stop to feed them. They are so tame that they will hop on the shoulders of their friends, and feed out of their hands.

In the country, they feed in the farmyard with the rest of the poultry. If however, you have no other sort of fowl, you will find keeping pigeons, just as interesting. But to make a success of them, they have to be housed and fed properly.

Begin with say two pairs purchased from a reliable breeder. You will soon have plenty more! Secure an old barrel, place perches inside, cut pieces out of it, through which the birds can come and go, thatch the top of it, and place it on a pole in shaded spot in your garden.

### Sand and Water

Regular supplies of sand for the floor and plenty of water for the birds should be provided, and as pigeons are very fond of bathing, suitable bowls of water for this purpose should be added. They will require at least three inches of water in which to bath, and if you have nothing suitable at hand, a galvanized bath is easily obtainable from any bird shop.

The birds should be fed twice a day, morning

and evening, with ready-mixed food which is quite cheap. Their favourite food is composed of dried peas, tick beans, wheat, barley and maize. It is always best to feed your pigeons out of doors if possible, otherwise, they eat dirty grain left over in the cote.

### Homers

Homing pigeons appeal to most people, because they can be trained to travel long distances and convey messages from one town to another. Their natural instinct is to return home, the moment they are released or "tossed" as it is usually called.

It is best to start training them with say a half-mile "toss," and gradually increase the distance, but remember to commence this training in the summer, when the birds are between three and four months old. Take them out about twice a week, and very soon you will find yourself entering all sorts of popular pigeon contests.

Many people who keep pigeons take their pets with them when they attend a football match, and as soon as the first goal is scored, they write the news on a slip of paper, and attach it to the bird's leg, and release him. Of course, he immediately makes for home, and very soon arrives with the news of what is taking place at the match. In many country districts, dozens of pigeons are released from football grounds. It is good practice and gives the birds something to do.



## For a fine finish to woodwork



Give your models a pukka finish with 'Varnene,' the finer Oil Varnish Stain. 'Varnene' stains and varnishes in one operation and gives a tough, high-gloss finish that resists chipping and scratching and makes woodwork waterproof.

Varnene is sold in Dark Oak, Walnut, Mahogany, Light Oak and Ebony Black, which stain to the natural colourings of these woods. Also in Clear (Colourless) Varnish. From Grocers, Oilmen, Ironmongers, etc.

In 6d., 1/- and 1/6 Tins.

# VARNENE

THE NEW AND MORE EFFICIENT  
OIL VARNISH STAIN

Chiswick Products, Ltd., London, W.4.

-V.B.T.61

## WEBLEY AIR PISTOLS

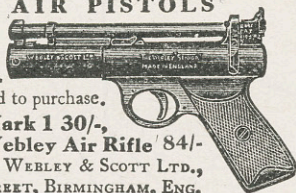
Marvellously accurate for target practice.

No license required to purchase.

Senior 45/-, Mark 1 30/-,

Junior 20/-, Webley Air Rifle 84/-

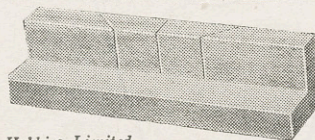
Write for List. WEBLEY & SCOTT LTD.,  
166, WEAMAN STREET, BIRMINGHAM, ENG.



## MITRE BLOCK

9ins. long with centre guide for sawing at right angles.

Price 9d. Post 4d.



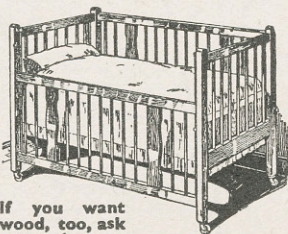
Hobbies Limited  
Dereham.

## Making a COT...?

These are the Fittings you need.

**Castors.** Smooth-running castors, just the right size for a Cot Price 9d. for 4. Post 4d.  
**Drop - Side Fittings** The modern Cot has a drop-side. These fittings cost only 3/6 set. Post 9d  
**Mattress and Frame.** Size 4ft. x 2ft. with comfortable spring, and sturdy frame 12/- carriage forward.

**Angle Plates.** Four steel Angle Plates with 12 suitable screws 9d. Post 2d.



If you want wood, too, ask us to give you a price.

Hobbies Limited  
Dereham



Cried Brown's wife "Many happies, my pet! Here's a nice FLUXITE SOLDERING SET. It's just what you need. For in this house indeed It is plenty of practice you'll get!"

See that FLUXITE is always by you—in the house—garage—workshop—wherever speedy soldering is needed. Used for 30 years in Government Works and by leading Engineers and Manufacturers.

OF ALL IRONMONGERS—IN TINS  
4d., 8d., 1/4 and 2/8

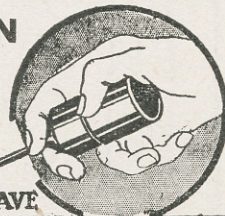
Ask to see the FLUXITE SMALL SPACE SOLDERING SET—compact but substantial—complete with full instructions—7/6  
Write for Free Book on the Art of "SOFT" SOLDERING and ask for Leaflet on CASE HARDENING STEEL and TEMPERING TOOLS with FLUXITE

TO CYCLISTS! Your wheels will NOT keep round and true unless the spokes are tied with fine wire at the crossings AND SOLDERED. This makes a much stronger wheel. It's simple—with FLUXITE—but IMPORTANT.

## THE FLUXITE GUN

is always ready to put "Fluxite" on the soldering job instantly. A little pressure places the right quantity on the right spot and one charging lasts for ages.

Price 1/6



ALL MECHANICS WILL HAVE

# FLUXITE

IT SIMPLIFIES ALL SOLDERING

FLUXITE LIMITED, Dept. H., Dragon Works, Bermondsey St., S.E.

# KOLYNOS PICTURE PUZZLE COMPETITION

MARCH 1937

## List of Prize Winners

Nine Prizes at £1 each (no mistakes):

J. J. Perrott, Cork	G. E. Young, Ramsgate
J. R. Jeffery, Portsmouth	P. A. Drew, Cirencester
G. Jones, London	E. J. Mitchell, London
C. Maerdyk, Potchefstroom	D. Blower, Battleford, Sask.
M. Gilpin, London	

One Prize at 10/6 (1 mistake: Highly Commended)

N. Smith, Oswaldtwistle

Eighteen Prizes at 7/6 each (1 mistake, neatest entries):

M. Knight, Elstree	A. Lavery, Frizington
D. Bulmer, York	J. Denyer, Camberly
M. D. Pain, Colchester	N. Horry, Sudbury
D. Warltier, Leamington Spa	E. Tutton, Cowes, I.O.W.
D. A. G. Nicholds, Truro	W. Dandy, Croston
F. E. St. Hill, Barbados	J. Latham, Bishop's Stortford
E. Norton, Gt. Meols	R. Sharpe, Naas
L. Riddell, Glasgow	I. G. Campbell, Gourook
L. Jeavons, Stockton-on-Tees	H. Marks, Armagh

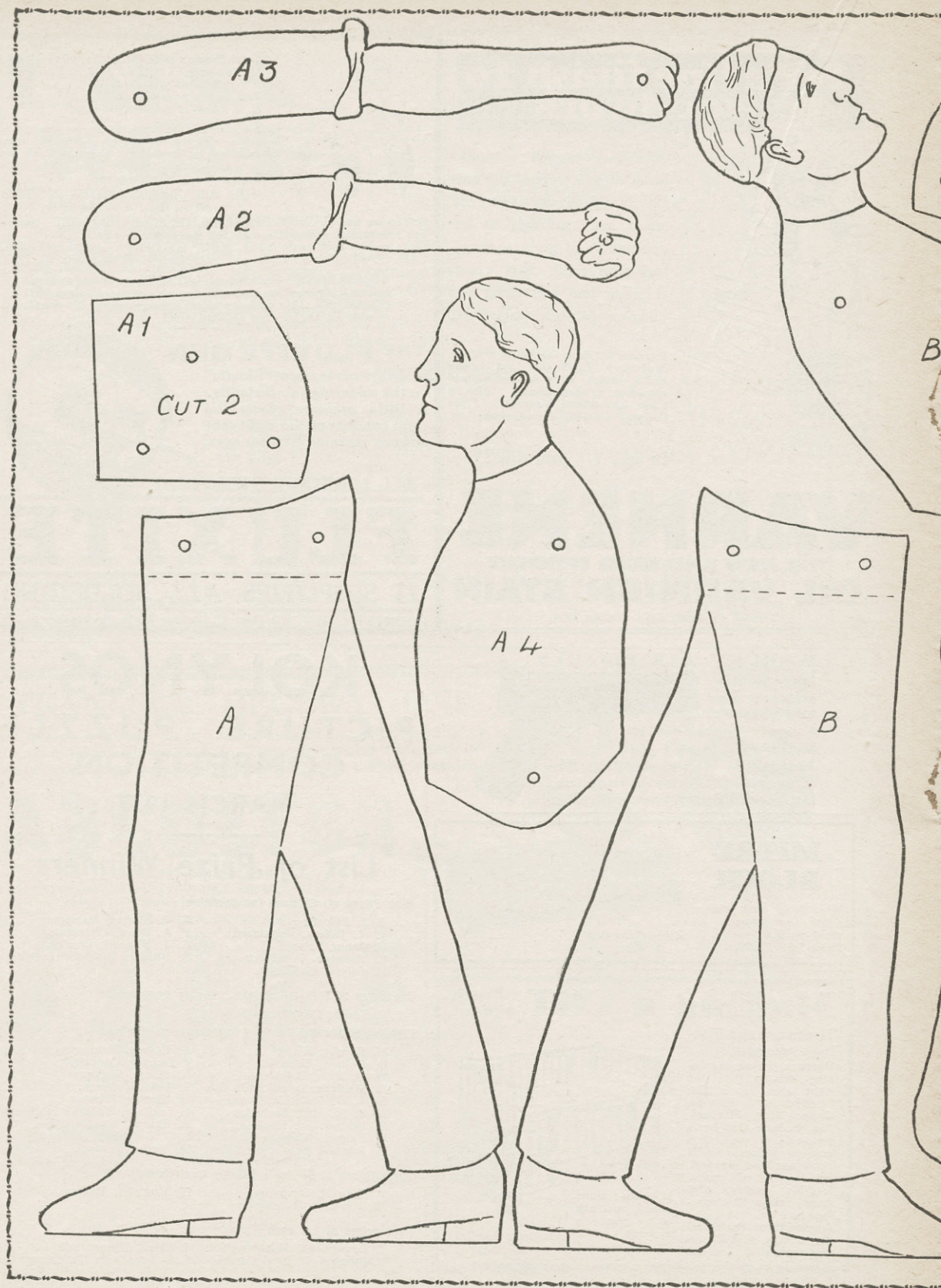
Three Prizes at 5/- each (Highly Commended):

M. Sidwell, Devonport	H. Kielland, Montreal West
M. Wareing, Manchester	

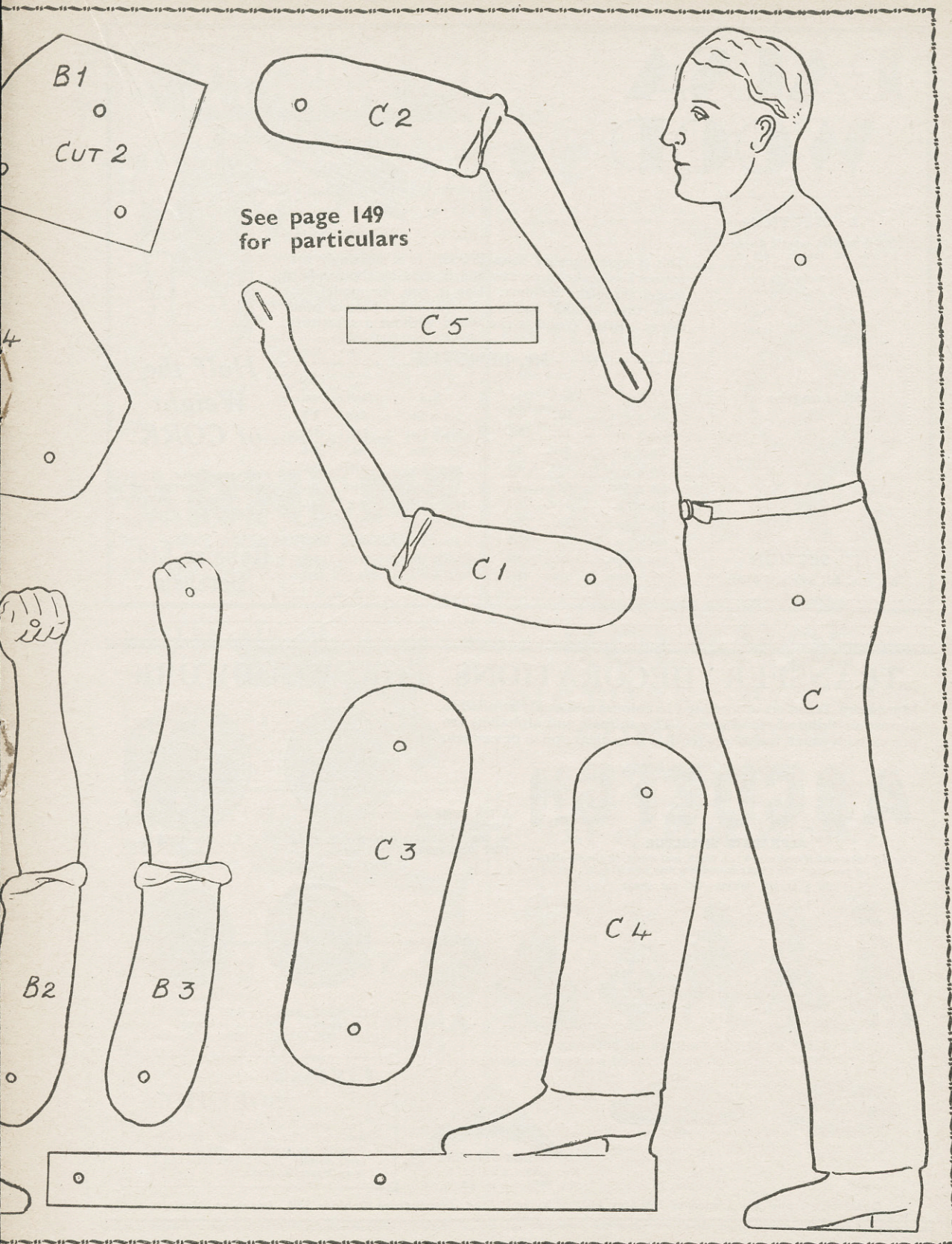
Four Prizes at 2/6 each (Commended):

J. Drummond, Motherwell	J. Clark, Kilmarnock
M. Quinton, St. Vital, Canada	G. D. Grantham, Gt. Yarmouth



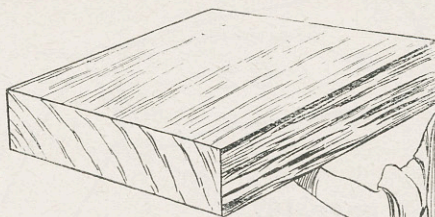






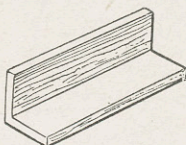


# BALSA WOOD

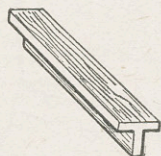


## "L" SECTION

$\frac{1}{8} \times \frac{1}{8}$  in. 4½ d. length. 4/- doz.  
 $\frac{1}{4} \times \frac{1}{4}$  in. 5d. length. 4/6 doz.



3ft. Lengths



## "T" SECTION

$\frac{1}{8} \times \frac{1}{8}$  in. 6d. length. 5/6 doz.

This is sound quality Balsa Wood. It is amazingly easy to work with knife or saw and is used by thousands of model aeroplane builders. Use it, too, for model boat hulls, toys, kiddies' building bricks, and a host of other things. Balsa Wood is the wood without a substitute.

## 3ft. LENGTHS

Size	Each	Doz.	Size	Each	Doz.
3in. $\times$ $\frac{1}{8}$ in. ...	5d.	4/6	$\frac{1}{2}$ in. $\times$ $\frac{1}{4}$ in. ...	2½ d.	2/3
$\frac{1}{8}$ in. $\times$ $\frac{1}{8}$ in. ...	1d.	10d.	6in. $\times$ $\frac{1}{4}$ in. ...	1/5	15/-
2in. $\times$ $\frac{1}{8}$ in. ...	3½ d.	3/-	$\frac{3}{8}$ in. $\times$ $\frac{3}{8}$ in. ...	3d.	2/6
3in. $\times$ $\frac{1}{8}$ in. ...	4½ d.	4/3	6in. $\times$ $\frac{3}{8}$ in. ...	1/9	19/-
6in. $\times$ $\frac{1}{8}$ in. ...	9d.	8/-	$\frac{1}{2}$ in. $\times$ $\frac{1}{2}$ in. ...	3½ d.	3/-
$\frac{1}{8}$ in. $\times$ $\frac{1}{8}$ in. ...	1½ d.	1/3	1½ in. $\times$ $\frac{1}{2}$ in. ...	7d.	6/-
$\frac{1}{4}$ in. $\times$ $\frac{1}{8}$ in. ...	2d.	1/8	6in. $\times$ $\frac{1}{2}$ in. ...	2/-	22/-
6in. $\times$ $\frac{1}{8}$ in. ...	1/-	10/6	$\frac{3}{8}$ in. $\times$ $\frac{3}{8}$ in. ...	4½ d.	4/-
$\frac{3}{8}$ in. $\times$ $\frac{3}{8}$ in. ...	2d.	1/8	1in. $\times$ 1in. ...	7½ d.	6/9
6in. $\times$ $\frac{3}{8}$ in. ...	1/3	13/6	2in. $\times$ 1in. ...	1/2	12/6

**Half the  
Weight  
of CORK**

Postage.—There is a minimum charge of 6d. to cover postage and packing.

**Hobbies Ltd.  
Dereham**

## TRANSFER DECORATIONS FOR WOODWORK

Marquetry Transfers are printed in colours and easily applied to almost any kind of woodwork. The animals and alphabets are put on with water, the others require size, clear polish or varnish.

# ABCDEFGH

### ALPHABETS IN COLOUR

The Alphabet and Numerals in red, black, and white, in simple slide-off process. On sheets containing two sets of each. In  $\frac{3}{8}$  or  $\frac{1}{2}$  in. letters—3d. per sheet.



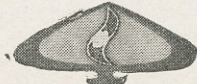
### STRIP OF DUTCH FIGURES (IN COLOURS)

No. 6053.—Figures 2in. high. Price 2d. a strip of six subjects.



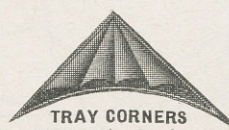
No. 5846.

3 in.  $\times$   $1\frac{1}{4}$  in.  
Price 1½ d.



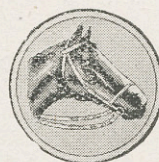
No. 5187.

3½ in.  $\times$   $1\frac{1}{2}$  in.  
Price 1d.

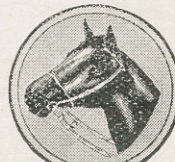


### TRAY CORNERS

No. 5403. 3 in. 3d. for 4  
No. 5404. 2 in. 2d. „ 4



S.O. No. 2. 2½ in.  
circle.  
Price 2d. each.



S.O. No. 1. 2½ in.  
circle.  
Price 2d. each.



S.O. No. 3. 2½ in.  
circle.  
Price 1½ d. each.



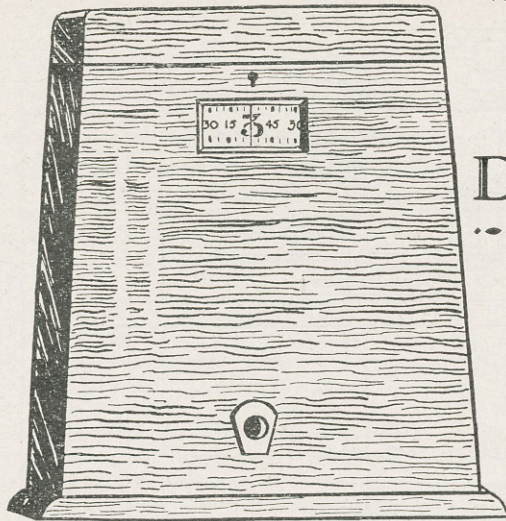
S.O. No. 31. 2in.  
circle  
Price 2d. each.

## FIXING SOLUTION

Just apply it thinly to the transfers and they come off easily. Specially prepared, in bottles with enough to do a large number. Price 6d. (postage 2½ d.) or with suitable brush, 9d.

Obtainable from any branch of Hobbies Ltd. or by post (1½ d. extra) from Hobbies Ltd., Dereham, Norfolk.





# AN AUTOMATIC CIGARETTE DELIVERY CLOCK

An ingenious novelty you should make up. A cigarette is delivered only at the appointed time. Just the thing to delight your friends.

Before fitting the base, cut out the slot which allows one cigarette to fall at the exact "hour" (see Figs. 3 and 5).

When you have completed the band shown in Fig. 6, unscrew the clock movement and draw out the drum. Then fasten the band on to the drum, temporarily, with two pins. Replace the drum and clock movement in the cabinet and now place a cigarette in one of the holes. Turn the thumb-screw round anti-clockwise until the cigarette falls through the slot.

A RATHER unusual subject for the model maker is an Automatic Cigarette Clock, so that shown on this page should be of interest to all our readers. When the cabinet is charged with twelve cigarettes, it will automatically eject one cigarette every hour, and you will also have the correct time always at hand.

It is a fascinating machine which will assist in cutting down your excess cigarette smoking. As you patiently watch the approaching hour for your ration you will soon realize how much more you will appreciate the smoke for the waiting!

The design shows all the necessary parts and makes the construction quite easy. The cabinet and other fittings are made from  $\frac{1}{4}$  in. five-ply wood. The clock movement which you will find very suitable is that taken from an alarm clock type, these can be obtained at prices ranging from 2/6 upwards, but any other kind of movement would do as well.

Make up the cabinet to size shown in Fig. 1 in  $\frac{1}{4}$  in. selected wood. Cut out the  $\frac{3}{8}$  in. hole and the opening pins by  $\frac{1}{4}$  in.

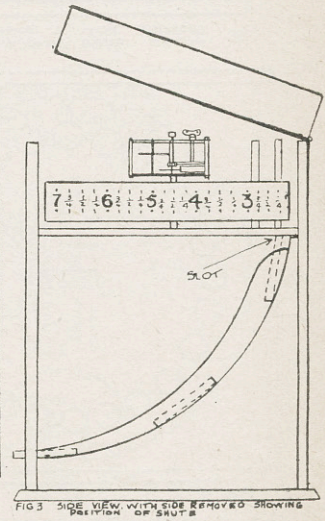
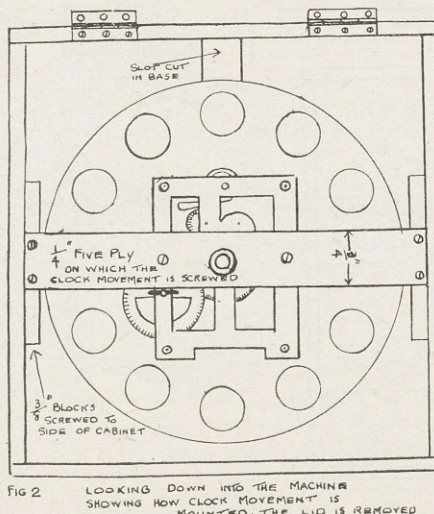
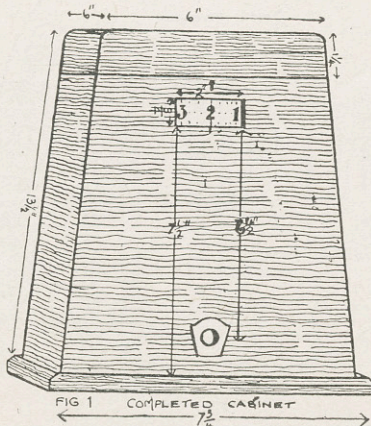
## The Circles

Then fret-cut out your two circles exact size shown in Fig. 7 and drill or fret-cut the twelve holes. Screw the two brass plates on two of these circles as shown in Fig. 5 and solder to the main spindle, making sure that the twelve holes correspond with each other to allow the cigarettes to stand upright. Then solder the gear-wheel to the spindle. The spindle may have to be filed smaller to allow it to fit this wheel.

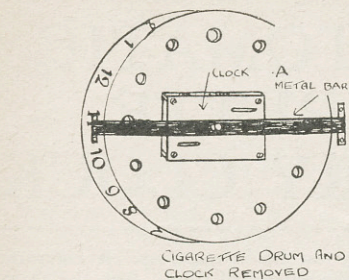
Mount the clock "movement" as shown in Fig. 2, taking care the centre spindle of the "movement" comes exactly over the spindle of the drum when level with the base.

Now look at the front of the cabinet and see that one of the hour figures comes exactly in the centre of the opening. If you have marked the

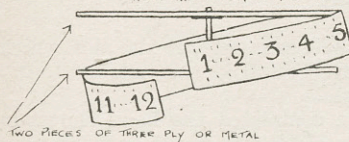
(Continued on page 162)







HOW THE DRUM IS MADE UP



TWO PIECES OF THREE PLY OR METAL

SIDE OF CABINET

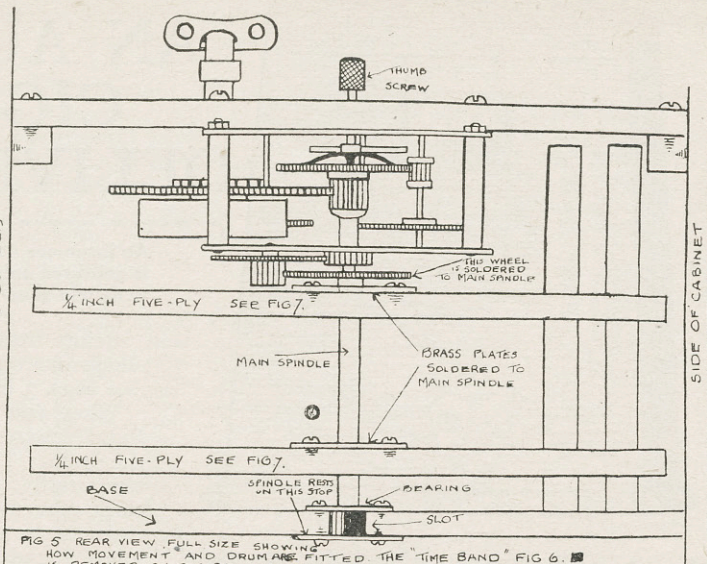


FIG. 5 REAR VIEW FULL SIZE SHOWING HOW MOVEMENT AND DRUM ARE FITTED THE "TIME BAND" FIG. 6. IS REMOVED ON THIS DRAWING SHOWING DETAILS OF BEARINGS ETC. TWO CIGARETTES ARE SHOWN ON RIGHT GIVING AN IDEA HOW THEY REVOLVE ROUND IN THE DRUM UNTIL THEY COME TO THE SLOT CUT IN BASE, SEE ALSO FIG. 3

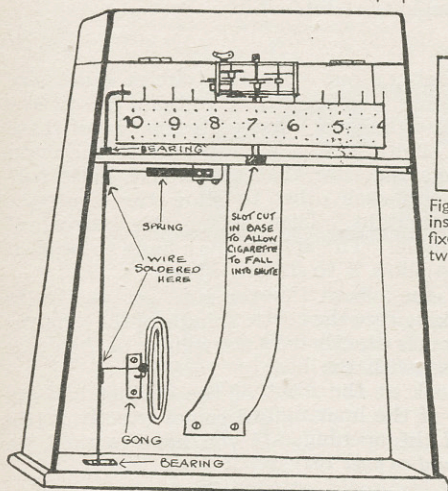


FIG. 8 SHOWING HOW A GONG CAN BE BE FITTED REAR VIEW WITH BACK REMOVED

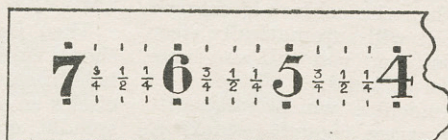


Fig. 6.—Showing how band is made. Length should be 16 ins. This allows  $\frac{1}{2}$  an inch overlap for sticking down when fixed on to drum, the figures, therefore, should be divided twelve times into 15  $\frac{1}{2}$  inches. Cut the strip from a sheet of thin "Bristol board" or smooth white paper

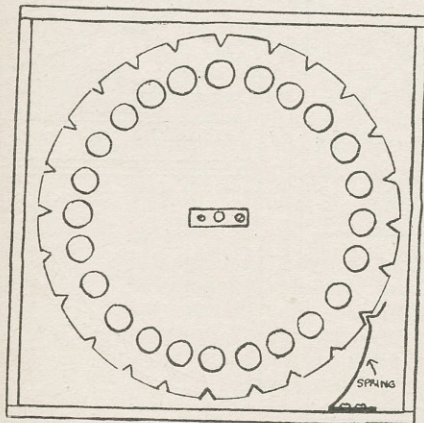
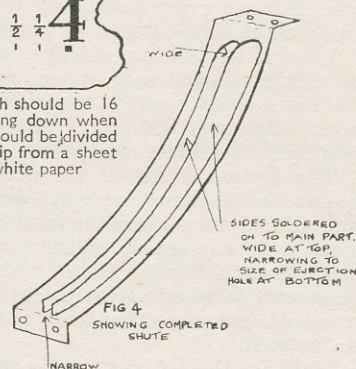


FIG. 9

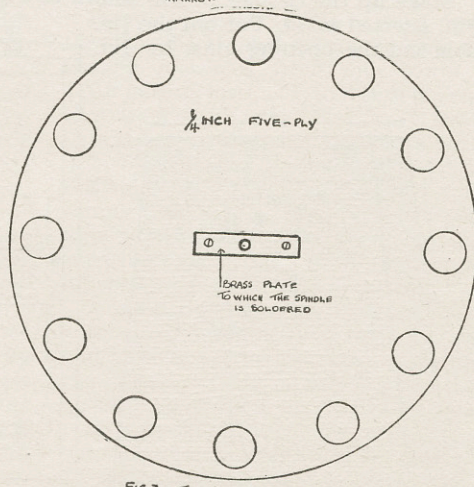


FIG. 7. TWO PIECES CUT LIKE THIS WITH 12  $\frac{1}{4}$ -INCH HOLES



## ORGANIC CHEMISTRY

# HOME CHEMISTRY



**W**E recently had a long list of queries from a reader, and on examination it was seen that all these questions related to the branch of chemistry known as organic. Beginners often wonder why the science of chemistry is split up into these two divisions, organic and inorganic.

The latter refers to almost every phase of chemistry with the exception of that branch which treats of the compounds of carbon. There are so many of these compounds that they have this branch all to themselves, and hundreds of text books have been compiled to deal with carbon compounds only.

It will help you to understand the distinction when you learn that there are no less than 300,000 compounds of carbon known to science.

### A Definition

An official definition of organic chemistry is:—The chemistry of those compounds of carbon which contain in the molecule an atom of carbon, directly associated with either hydrogen, nitrogen, or another carbon atom. There are, however, certain carbon compounds which are by general consent regarded as belonging to the inorganic class, this being just another example of the exception to every rule.

With so many compounds it may be wondered whether it is possible to ascertain the simplest of these forms, but it is known that methane is the simplest organic compound. It contains only the two elements, carbon and hydrogen, and is a member of the enormous number of carbon and hydrogen compounds known collectively as the hydrocarbons.

Methane is found free in nature in large quantities. A more interesting name, perhaps, is marsh gas, which was given to the compound because of its occurrence in marshy places, by the decomposition of vegetable matter. It is

also found in coal mines and is called fire damp by the miners.

A simple laboratory method of preparing methane is to heat strongly in a copper retort a mixture of sodium acetate and sodium hydroxide, though in this case the methane contains a certain amount of hydrogen.

### Three Gases

Three other gases in close association with methane are ethane, propane, and butane, but no doubt the most familiar of this class of gases is ethine, otherwise known as acetylene. Don't get confused over these names, and think that ethine is just a misprint for ethane.

The formulæ are: Ethane,  $C_2H_6$ ; Ethene,  $C_2H_4$ ; Ethine,  $C_2H_2$ . You all know that barium carbide, or "carbide" as you usually call it, gives off acetylene when acted upon by water, which is the chemical fact upon which the production of acetylene cycle lamps is based. This gas is also present in small quantities in ordinary coal gas, which is why you get the smell of acetylene when a Bunsen accidentally becomes lighted at the base.

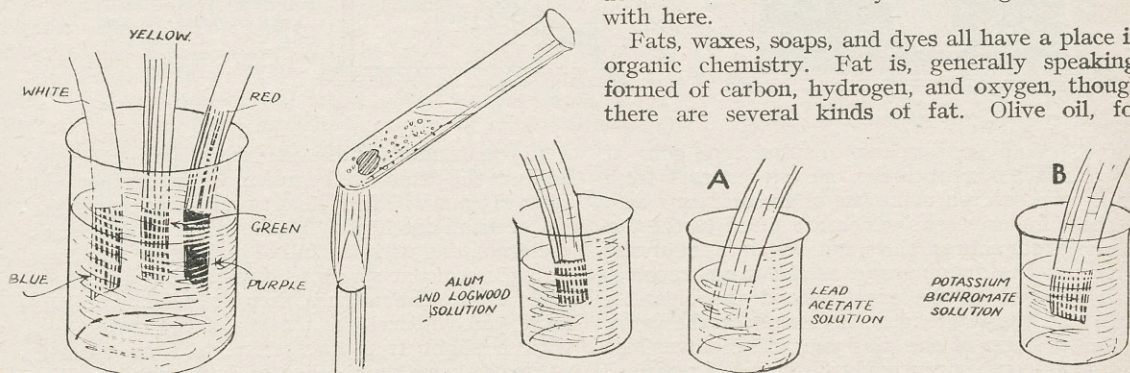
### Alcohols, Fats and Dyes

The interesting compounds known as alcohols and ethers are actually organic compounds which contain the hydroxyl group. Methyl alcohol is the simplest of the alcohols, but it is not used for beverage purposes, being extremely poisonous when taken internally. This particular form of alcohol is a by-product of the combustion of wood in the production of charcoal.

The common form of alcohol which is contained in beers and wines is grain alcohol or ethyl alcohol. Then there is propyl alcohol, isopropyl alcohol, butyl alcohol, amyl alcohol, and the remaining aliphatic alcohols.

All these alcohols are related chemically, but the details are not sufficiently interesting to be dealt with here.

Fats, waxes, soaps, and dyes all have a place in organic chemistry. Fat is, generally speaking, formed of carbon, hydrogen, and oxygen, though there are several kinds of fat. Olive oil, for



The Triple Dye Experiment

Producing Soap

Producing Red Dye

Immerse in A and then B to dye yellow



instance, is oleate of glyceryl, while mutton fat is stearate of glyceryl.

Soap is formed by boiling up fat with potash or soda, and you can make some by heating to boiling point some sodium hydroxide and dropping a small piece of beef or mutton fat into it; if the boiling is continued you will get a crude form of soap.

As to dyes, there are always form an interesting subject, and there are sufficient substances in your "Hobbies" chemistry outfits to enable you to make up several dyes.

### Producing Colours

For instance, to dye red, prepare a strong solution of alum and logwood in boiling water and allow it to cool; any articles dipped in this liquid will be dyed red.

To dye yellow, make a solution of lead acetate and immerse a piece of white material in it. Have another vessel containing a solution of potassium bichromate, and dip the soaked material in this. You can control the depth of the yellow colour by the amount of bichromate you use.

A very attractive green colour results when a piece of cloth is first dipped into a solution of cobalt chloride, taken out and wrung dry, then dipped into a solution of sodium ferrocyanide.

A remarkable effect is obtained when some indigo is dissolved in a diluted solution of sulphuric acid, and an equal amount of potassium carbonate is added. If a piece of white cloth is then dipped in this mixture, it will be dyed blue; a piece of yellow cloth is dyed green; and a piece of red cloth is dyed purple.

And now, if you would like to fix up a small dye works at home, take three glass jars of water and into the first dissolve a little chloride of iron, into the second a little sulphocyanide of potassium, and into the third a small amount of ferrocyanide of potassium.

Dip a piece of clean white cloth in the first glass; there will be no change in its colour. Take it out, wring it almost dry, and immerse it in the second glass. It will now be dyed red, and if you take it out and dip it in the third solution, the colour will be changed to dark blue.

### Cigarette Delivery Clock—(Continued from page 159)

band out correctly, the other holes will correspond with the other figures so you can permanently fasten on the band either with small pins or with cement. Make sure you do not move its position.

It now only remains to fix the shute, which is made of thin tin. The guides, after being cut to fit the bend of the main piece, are soldered into place narrowing down to the end to guide the cigarette through the hole.

If you wish to fit a gong to strike when a cigarette is ejected at the hour, the details are shown in

It is advisable to cement a small piece of glass inside the cabinet to cover the opening where the time is shown. Before fitting, draw a thin line down the centre of the glass to help in determining the exact time.

Should you wish to dispense with the mechanical part, you can complete an attractive cigarette cabinet. Instead of fitting the clock continue the main spindle up through the top of the cabinet, where it can be fitted with a thread and a knob made to screw down tight.

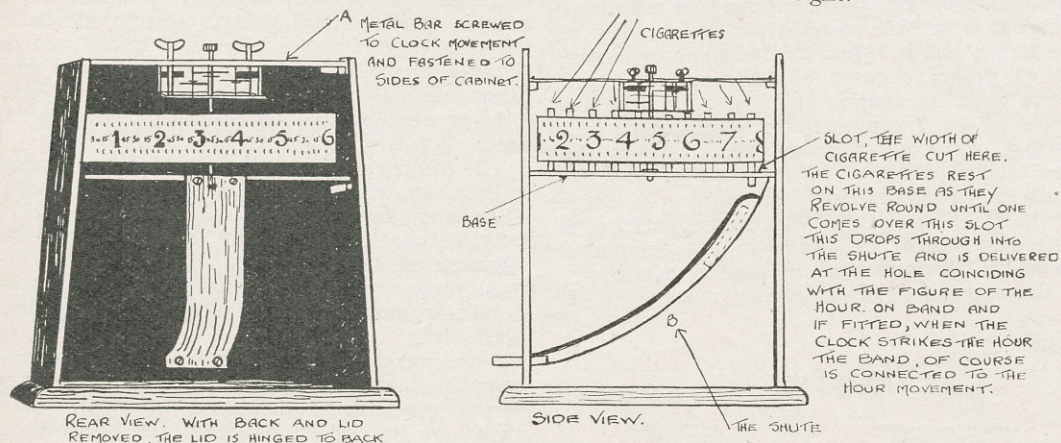


Fig. 8. You can purchase a spiral type gong at any clock-maker or make one up yourself from piano wire or even make use of an ordinary bell.

The pins or screws which are fitted to the top of the drum actuate the spindle against the spring shown in the drawing and as the drum revolves it is released at the exact second the cigarette falls, and the hour figure is central at the front.

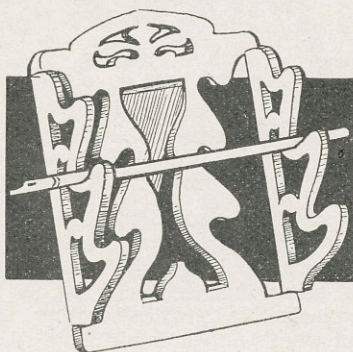
The position of the pins you will discover also by revolving the drum with the thumb-screw until the cigarette falls.

If you decide to make one like this, the cigarette holes in the drum can be much closer together and your cabinet will then hold twenty-four cigarettes.

Cut small notches in the side of one of the circles corresponding with the fall of a cigarette and then fit a piece of flat spring to press against the circle and fall into the notches, then at each turn of the knob you will feel the tension of the spring and with a slight turn a cigarette will be ejected.

Fig. 9 shows the method of cutting the notches and fitting the spring.





## A NOVEL ONE-PIECE PEN RACK PATTERN

**H**ERE is a decided little novelty which can be cut from a single piece of wood in a very short time, and without any trouble. It is, as you see by the picture above, a pen or pencil holder, cut out in fretwood. The novelty of it is when not in use the whole thing lies perfectly flat.

It is, indeed, cut from a single piece of fretwood  $\frac{5}{8}$  ins. long and 4 ins. wide, pattern for the whole thing being given herewith. Instead of making the strut and the two racks from separate pieces, they are cut out according to the pattern shown and made to pivot on small pins.

It is advisable to use wood not less than  $\frac{1}{4}$  in. thick because of the nails being driven through this thickness, and if anything thinner is used the board is apt to split. The cutting out should be done with a very fine fretsaw (about grade 00) and care taken that no errors are made in the cutting.

Take out first of all the shaded portions and clean up if necessary with a fret file. Then, cutting inwards from the sides, go along the line which provides the three indentations for the pen holder itself.

You will, of course, have to cut through where the pivot pin is shown, but this does not matter. Next you cut out the central portion putting the drill

hole in some obscure spot near the corner on the cutting line itself.

Now clean all parts up with glasspaper in the usual way. The centre piece which was cut out forms the hinged support for the rack when it is pressed backwards. It is fitted by means of two short pins or fretnails being driven into the edge of the wood in the line shown on the pattern. If you cannot reach the pin heads with the hammer conveniently, lay a little piece of flat metal on it then tap on the metal.

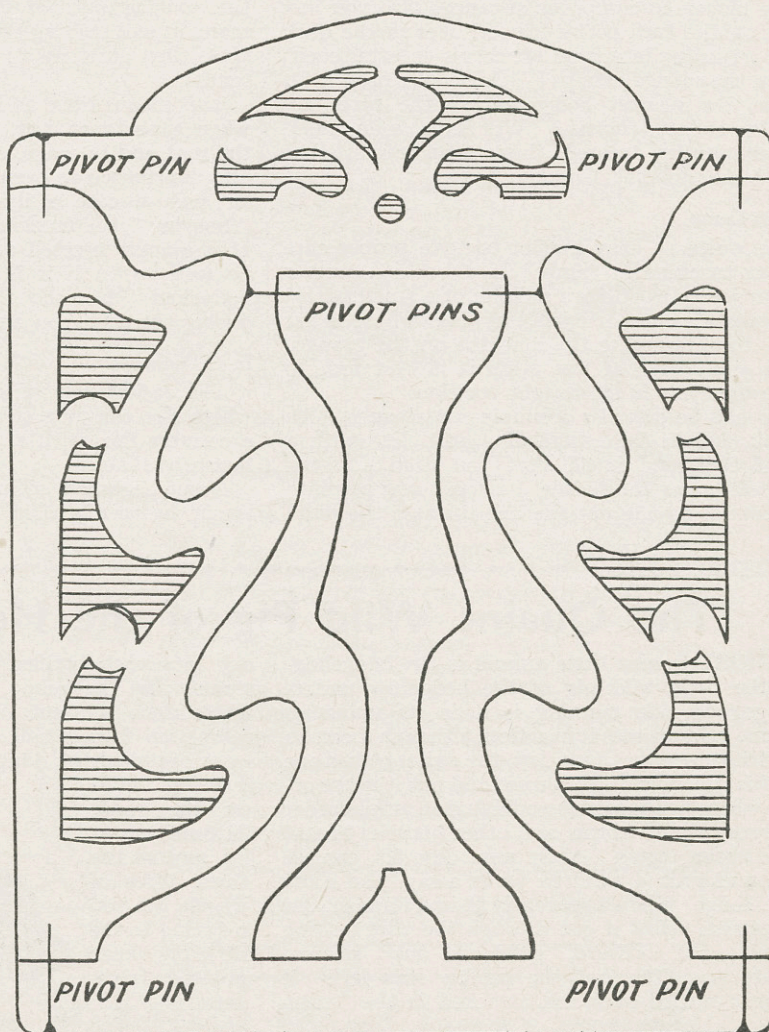
The two outer support pieces

are fitted in the same way, but here a longer pin must be used. For the centre strut they will do if only  $\frac{3}{8}$  in. long, but for the top it is advisable to have  $\frac{1}{2}$  in. and for the bottom  $\frac{3}{4}$  in. or  $\frac{1}{2}$  in.

This is just the sort of pen rack to make to carry about, because it is compact and handy, yet easily fixed in place.

The centre strut should fit tightly in order to prevent it falling out too far.

Finish the pen rack with stain and polish or paint it in quiet colours.







**C**YCLE Camping usually begins in spring, when the hardy enthusiastic campaigners pitch their little tents among the daisies and primroses, and attract devotees right on until by August Bank Holiday we find them in crowds. It is a gay and sporty sort of holiday, and for an enjoyable week-end 'break' nothing can beat it, providing the sun is kindly disposed and it is tolerably dry on the grass.

Much has been written about the subject in these pages, and yet there is room for further remarks on so fascinating a pastime.

The bicycle in camp, for instance. Do you just lay it on the turf, to be tripped over in the dark when returning late from an hour's entertainment among the village gossips? Or do you prop it up against the nearest hedge, where the tyres are apt to collect thorns? We have seen more camper's cycles treated thus, than cycles that have been properly "parked."

#### Care in Camp

It is quite an easy matter to take proper care of your machine in camp. If a "solo" camper (it's far jollier to go with a chum or a small party) then you may use a cycle guy-line, which is far better than dumping the machine on the ground. When you arrive at the pitch it is best first to secure the cycle in an upright position.

This can be done by a simple contrivance. An S hook tied in the centre of a 12ft. line with a peg at each end is all that you need. Fasten the hook under the saddle, then put one peg into the ground, paying out the line through the hand

as you leave the machine, then peg out the other side. With or without a load it will stand firm.

When two chums are pairing together, then the machines, after being unloaded, can be neatly "stacked" by placing the saddles together, and turning the front wheels outwards until the cycles are well balanced. A piece of waterproof cloth or an old groundsheet will protect them from rain or dew.

#### A Cover for the Machines

If you are with a party of cycle-campers taking the touring part of the business in a leisurely manner, and staying two or more nights in a given spot, then an extra fly-sheet will serve as a cycle tent.

This means little additional weight to carry, as, when a party of, say, four members are on tour the tent and baggage, etc., are made up in parcels and distributed as evenly as possible among them. In such a case a fly-sheet for the purpose of "housing" the machines is worth while carrying. It is quickly erected on its two poles and should be well guyed if it is windy; the machines are "stacked" beneath it, and are well protected during the time you are staying in camp.

#### In an Outhouse

The easiest way of storing cycles, of course, is where the camping site is attached to a farm or a country inn, with a spare empty stable or outhouse available.

Many beginners seem to overlook the fact that life in the open is a big change from their everyday

#### ♦♦NATURE NOTES♦♦

### The Quaint Wild Pig of the Hedgerow

**A** MOST quaint little animal is the hedgehog, the little wild pig of the hedgerow undergrowth. So cunning is it in its manners, that one seldom sees it in action, although it can be quite frisky at times. One day, the writer picked one up (with aid of cap, of course) and put it in the orchard, where he thought it would find an ample larder of beetles, slugs, worms and other luxuries to suit its epicurean tastes. Alas! next day, its carcass was found over a hundred yards away, just short of the hedge, where apparently it had its nest and youngsters. How it got through the wire netting guarding the orchard, goodness only knows!

There was little but the prickly skin left. It had been turned over and attacked in the "tum-

my" its least fortified front—probably by fox or stoat. The hedgehog does little harm but a tremendous amount of good. Its aptness, by rolling up into a ball of prickly defence, at the least approach of danger, probably accounts for it being found on the road, flattened out by motors the thick tyres of wheels are too resisting to the little pig's keen pointed bayonets.





existence under a roof and in rooms that are heated, so they unthinkingly take undue risks, and rush straight from one extreme to the other.

Result—they return home with bad colds or complain of cramp or rheumatic pains. Yet the tyro with gumption to look after himself need have no fears about camping even though the weather in early Spring may be reminiscent of winter.

There is no reason why the newcomer should not keep free from colds. It is simply a matter of recognising that outdoor conditions are different from home life.

### Groundsheet and Tent

Damp and wet are the greatest bugbears to camping in our fickle English weather. Whatever you do get a really *good* tent guaranteed thoroughly waterproof. Likewise with your groundsheet—it must be of the best quality. In the selection of clothing, if weather promises to be chilly, wool is to be preferred. Cold won't hurt much if your clothes are of woolly material—undergarments, we mean. Even if you become well soaked, you will not take much harm if wearing wool.

Do not sit about in wet clothes. It may appear hardy to do so, but it is really *foolhardy*.

Strip and rub down, and put on spare clothing while your other togs are dried at the fire. If raining very hard and you cannot light a fire, get your Primus going—it's marvellous what you can do with a good Primus stove. Cook, warm tent, dry clothes, boil kettle, and goodness only knows what else. But do not set the tent on fire when you have the lighted stove inside!

### Keep Your Feet Dry

Beware of wet boots and stockings—there is less risk of catching cold in going about barefooted in camp than by wearing wet footwear. Dry boots by turning them upside down on a peg stuck in the turf.

Give your "curly locks" a good towelling after a drenching, then you will not take much harm. And do not sit on damp ground—get your groundsheet.

Keep all clothing off the ground at night, and if you feel cold after getting "parked down" in your sleeping-bag put on your sweater over your pyjamas, and put on a dry pair of stockings.

Little precautions such as these help one to avoid catching cold when camping out in the early part of the season. In hot summer weather the matter is different, but even then you cannot always take liberties.

## A PIPE REST

THE artistic pipe rest illustrated, is just the thing for a smoker friend to rest his pipe when working at the table or desk. The base of the article is made in wood  $\frac{1}{2}$  in. thick and a piece is cut to size 5 ins. by  $4\frac{1}{2}$  ins. as indicated in Fig. 1. Take a distance of  $\frac{1}{2}$  in. from the end and  $\frac{1}{2}$  in. from either side, and then carefully cut the two slots 1 in. by  $\frac{3}{8}$  in. as shown.

Now measure a distance of 2 ins. from the other end, and taking a centre line  $\frac{3}{8}$  in. from either side mark off squares of  $\frac{1}{4}$  in. as indicated, and then draw the shape of the cavity for the pipe bowl to rest in. These cavities for the pipe bowl should be made about  $\frac{3}{8}$  in. deep at the broad end, and they are quite easily cut out by means of a gouge.

The support end for the pipe stem is indicated in Fig. 2, and this is made in wood  $\frac{3}{8}$  in. thick. First cut the wood  $4\frac{1}{2}$  ins. long by  $3\frac{1}{8}$  ins. wide. On a centre line a

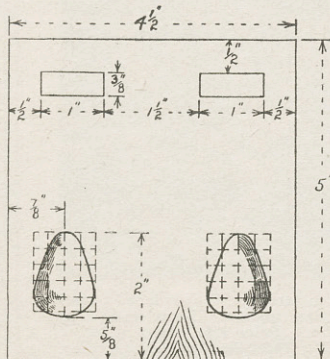


Fig. 1—Details of the base

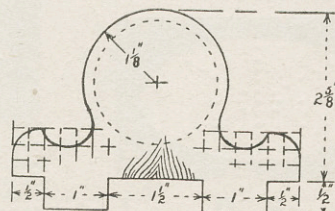
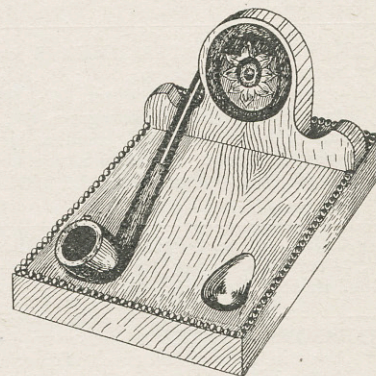


Fig. 2—The end support piece



distance of  $1\frac{1}{8}$  ins. from the top scribe a circle of  $2\frac{1}{4}$  ins. in diameter.

The bottom edge is carefully marked off for the two tenons which are cut 1 in. wide by  $\frac{1}{2}$  in. deep as shown, and should be a good fit in the slots cut in the base. The curved shape on the ends are readily marked off by dividing the surface into  $\frac{1}{4}$  in. squares and then neatly cut out.

The support end when made is fixed into the base and the wood is then made nice and smooth. Strips of  $3/16$  in. half round ball beading are fixed round the edges, and 2 in. oak rosette is fixed on the front as shown in Fig. 1, also the position for this is indicated by the dotted circle in Fig. 2. The pipe rest is now finished by giving it a good coat of stain.

### Cutting List

- 1 piece 5 ins. long by  $4\frac{1}{2}$  ins. wide by  $\frac{1}{2}$  in.
- 1 piece  $4\frac{1}{2}$  ins. long by  $3\frac{1}{8}$  ins. wide by  $\frac{3}{8}$  in.
- 1 2 in. oak rosette.



# MISCELLANEOUS ADVERTISEMENTS

The advertisements are inserted at the rate of 2d. per word prepaid. Name and address are counted, but initials or groups, such as E.P.S. or £1/11/6 are accepted as one word. Postal Order and Stamps must accompany the order. They will be inserted in the earliest issue. To sell anything except fretwork goods or those shown in Hobbies Handbook. Orders can be sent either to Hobbies Weekly, Advertisement Dept. 30/32 Ludgate Hill, London E.C.4. or Dereham, Norfolk.

**MONEY-MAKING** Opportunities constantly occurring; highly recommended; particulars free. Send postage.—Messrs. Green, 17 Church Lane, Hull.

**LONELY?** Then write Secy., U.C.C., 16BB., Cambridge St., London, S.W.1. Genuine. Established 1905.

## "MENDINE."

**MENDS** Everything. A liquid glue cement in tubes, 2d., 4½d., 8d., from all Stores. If unobtainable, write Mendine, 123 Borough, S.E.1.

**LATHE AND FRETSAW** 90/- carriage forward. Treadle-driven and just the thing for the home handyman. Write for details.—Hobbies Ltd., Dereham.

**INVENTIONS PROTECTED.** Booklets gratis.—Reginald W. Barker & Co., Patent Agents, 56 Ludgate Hill, E.C.4.

**GRAMOPHONE ATTACHMENTS** for Radio, electric, motors 25/-; Pick-ups, 9/6; Portable Gramophones, 12/-; spring motors, 4/6, dozen 36/-, 100 £12/10/6, 1,000 £100; Walnut pedestal Anexagram, £5; soundboxes, 1/6; tonearms, horns, cabinets, needles, gears, springs, accessories, cheapest. Quantity buyers obtain lower prices. Catalogue free.—Regenthob, 120 Old Street, London, E.C.1.

**A.C./D.C. 1 & 3-PHASE MOTORS.** All voltages, from 14/9. Lists Free. Repair Specialists, EASCO, 18h, Brixton Road, S.W.9.

**PERSONS WANTED** to make up Leather Goods at home in spare or full time. Experience unnecessary. Good Pay. Write Dept. B7.—"UNIVERSAL" 17 Peel Street, Luton.

**START** stamp collecting now. Album 100 stamps, Hinges, Watermark detector and perforation gauge, 1/- Postage 2d.—G. Thompson, 76 Belgrave Gate, Leicester.

**STAMPS**—50 Free to Approval Customers.—Burley, 21 Jardine Road, Aston, Birmingham.

**MOVIES AT HOME.** How to make your own Cinema Projector. Particulars free.—Moviescope (H), Pear Tree Green, Doddinghurst, Essex.

**100 STAMPS FREE.** Request Approvals.—R. Fowler, 12 Henderson Avenue, Scunthorpe.

**ALL** stamp collectors should read the "Stamp Collector's Fortnightly," Editor Fred J. Melville, for interesting and authentic articles and latest news. Annual subscription 5/-, or 2d. fortnightly from your newsagent. Specimen from "S.C.F." 44 Bedford Row, W.C.1.

**"FIFTY-FIFTY"** Stamp Exchange. Send 50 all different, mounted on sheet. Enclose stamped addressed. Another sheet returned.—Hedley, 52 Union Park Road, Berwick-on-Tweed.

**POLISH OUTFIT** 2/3; post 6d. Comprises three kinds of stain crystals, woodfiller, cotton-wool rubber, bottle of Hobbies "Lightning" polish, glasspaper and instructions.—Hobbies Ltd., Dereham.

**50 STAMPS FREE.** Approvals. Marvellous value. 2d. stamp.—Paul, 226 Cornwall Road, London, W.11.

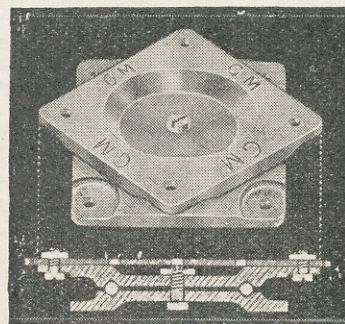
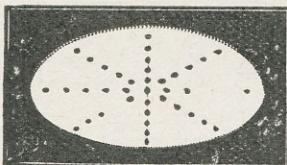
**THE WORLD'S MOST POPULAR FRETWORK SET**—Hobbies A1, price 10/6; post 9d. Other sets from 1/6 to 20/-. Send for list.—Hobbies Ltd., Dereham.

## 1/6 Buys This Ball-Race Turntable...

No longer need you pay a high price for a ball-race turntable. This one is engineer-made and costs only eighteen pence! A heavier model (for revolving display stands in shop windows) costs only 8/6. Gear wheels are also supplied as shown. Ask to see a Turntable at any Hobbies Branch.

### GEAR WHEELS

3½ ins. dia. to fit small turntable. 17 holes. Made from hard brass. ½ in. thick. Machine cut teeth. Price 1/-. Postage 2d. Gear wheel to fit large turntable 5½ ins dia. 41 holes. Price 2/9. Postage 3d.



Smooth in action. 45 hardened steel balls. 2½ ins. square. 5-hole size. To carry 56lbs. Price 1/6. Postage 3d. **HEAVIER MODEL.** 5½ ins. diameter. 11-hole size. 80 steel balls. Guaranteed to carry 112lbs. Price 8/6. Postage 6d.

**Hobbies Ltd. Dereham & Branches**



# STAMP COLLECTOR'S CORNER

## NEW ISSUES AND NOTES

THIS month one wants to use the expression "Not very exciting!" when one comes to discuss the new issues which have just come to hand. Still, since we are very soon to have the influx of Coronation stamps from the Dominions and the Crown Colonies we must not be impatient.

South West Africa have again brought out a new pair of the 1½d. value. These should, of course, be collected in pairs to show the bi-lingual nature of the



*Modern South West African Transport*

stamps. One stamp is printed in English and the other in Afrikaans—both these languages being officially in use.

Generally, it is considered desirable that the pairs are horizontal, as in the illustration, rather than vertical. The difficulty of getting a pair of used is considerable, especially if one wants them joined. And one does not use the term pair for two stamps which are separated, remember.

The design of the stamps should suit those who are keen on transport subjects, particularly the transport of mails, for the stamps show the up-to-date means of air, land, and water mail services. The colour is chocolate, and the watermark is the usual multiple springbok's head.

The train in the foreground is one of the South African Government Mail trains, and the liner shown is the Athlone Castle, with a Junker aeroplane above.

THE third illustration may appear perfectly normal at first sight, but actually the overprint of this 1937 Red Cross Charity stamp from Greece is inverted.

Now, most readers will anticipate that such a stamp is an error and consequently very valuable. They would be correct in that the inverted overprint is an error, but they would not be correct in thinking that because of this it must be very valuable.

The point is, that instead of just one stamp in the sheet having the abnormal overprint, all the stamps of the sheet are so overprinted, and the sheet consists of fifty stamps. Do not, however, imagine from this that only 50 stamps have this error, for all the stamps printed from the plate (many 50's) show this, and the price instead of running into pounds does not even run into pence.

One specimen of this stamp may be obtained of most of



*From Manchukuo*

the dealers for one penny! Readers should try to get one of these, however, not because they may expect it to be valuable, but as it is very useful to have such a stamp in the collection.

The overprint is, of course, on the 50 lepta of the 1927—35 issue of Greece. The particular specimen shown is the 1933 re-engraving, the scene being the Corinth Canal opened in 1893 connecting the Gulf of Corinth with the Gulf of Aegina. This virtually makes Morea an island, and one should also notice the railway bridge connecting Morea with the mainland.

The three fen manchukuo is one of two stamps issued to commemorate the fifth anniversary of the

foundation of the State of Manchukuo, and the third anniversary of the enthronement of the Emperor. The design is difficult to decipher. It appears to be the palace with floodlighting and the rays of the sun at the back, but the colour (green), does not bring out the points of the design at all clearly.

The fourth stamp shown, the German stamp, is one of three Air Defence League commemoratives, as it was out on the fourth anniversary of the foundation of this league.

The letters in the shield are the guiding points, and according to the 7th Catalogue supplement of Messrs. Stanley Gibbons the letters refer to R(eichs) L(uftschutz) B(und) or Air Defence League.

NOW some points concerning stamps which are not illustrated here.

Four stamps are issued from Hyderabad to commemorate the Silver Jubilee of H.E.H. the Nizam. Hyderabad is the second largest state in India, and the Ruling Prince is entitled to a salute of 21 guns. Five princes are entitled to such a salute by the way, whilst others have 19, and some only 11 guns.

Hyderabad has by far the largest population of any of the Indian States—over 14 millions. The



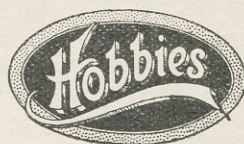
*From Greece      German Air Defence*

designs of the stamps are views of the various buildings, two hospitals, a university, and the Osmania Jubilee Hall.

Canada was the first in the field with the stamps bearing the portrait of H.M. King George VI. Three values 1c., 2c., and 3c. have so far appeared.



**FREE!** Let us send you an illustrated list of **HOBBIES** Outfits. Address your request to Dereham, or call at any of the Hobbies branches.



## THE " ENSIGN "

Contains just the tools you need to make a start with, bright coloured design on wood ready for cutting. Full instructions on back of card.

**4/6**

Post 6d.



## Must it be a Boxed Outfit ?

Boxes cost money to produce. If you are looking for a set of tools at a moderate price... a set that gives you all the value in the tools themselves, choose either of the outfits shown here.

If you are buying an outfit for a gift to someone...or if you are buying for yourself, these outfits are the best value you can buy at the price.



**HOBBIES  
LIMITED  
DEREHAM  
AND  
BRANCHES**

## THE " NELSON "

This outfit has more sawblades, a glasspaper block, rule and polished table not found in the "Ensign." It is an ideal presentation outfit.

**6/-**

Post 6d.



## From a User .....

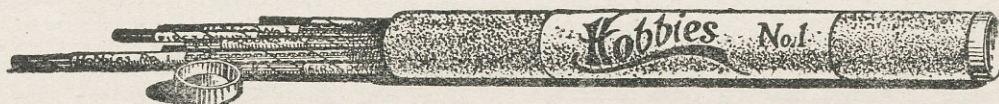
Just one of many expressions of appreciation we receive from users of Hobbies Fretsaws. Be guided by the thousands of craftsmen the world over, who know from experience that for strength, sharpness and long life, Hobbies Fretsaws are unequalled. Remember...Hobbies Fretsaws are the best money can buy.

BLUE LABEL	YELLOW LABEL	SILVER LABEL
<b>4 1/2 D.</b>	<b>6 D.</b>	<b>9 D.</b>
Per Doz.	Per Doz.	Per Doz.
4/- Gross.	5/6 Gross.	8/6 Gross.

Pos: 1 1/2 d. extra from Hobbies Ltd., Dereham

## ALL WITH ONE BLADE!

Mr. E. V. Hughes, Co. Armagh, writes:—"I have just completed the model of the Lord Mayor's Coach, a smoker's table, model altar, pipe rack, model aeroplane, letter rack and the 'Home Shrine'—all with one blade, which is still intact. I think this is a pretty good record for a beginner."



# HOBBIES BRITISH FRETSAWS



# HOBBIES

BRANCHES AND AGENCIES. LTD.

Below are the addresses where Hobbies goods can be purchased. In addition, all leading stores and ironmongers stock or can obtain your requirements in fretwork and woodwork, designs, wood, turned legs, moulding, polish, etc.

## HOBBIES OWN BRANCHES—

LONDON - - - 16 NEW OXFORD STREET, W.C.1.  
LONDON - - - 147 BISHOPSGATE, E.C.4.  
LONDON - - - 83 NEWINGTON BUTTS, S.E.11.  
GLASGOW - - - 326 ARGYLE STREET.  
MANCHESTER - - - 10 PICCADILLY.  
BIRMINGHAM - - - 9a HIGH STREET.  
SHEFFIELD - - - 4 ST. PAUL'S PARADE.  
LEEDS - - - 10 QUEEN VICTORIA STREET.  
SOUTHAMPTON - - - 25 BERNARD STREET.  
BRIGHTON - - - 68 LONDON ROAD.  
CANADA

54 WELLINGTON STREET WEST, TORONTO.

## HOBBIES AGENCIES—

Aberdeen.—Jas. Mutch, Ltd., 47 Broad Street; Blackburn.—Mr. H. Mercer, 68 Darwen Street; Bradford.—Messrs. T. Underwood & Co., 13 and 15 Manchester Road; Cambridge.—Mr. H. S. Driver, 28 Hills Road; Canterbury.—Mr. T. D. Goodman, 33 Burgate Street and 16 St. George's Street; Cardiff.—John Hall (Tools) Ltd., 22 and 24 Morgan Arcade; Croydon.—L. H. Turtle, Ltd., 6 Crown Hill; Dover.—Mr. E. F. Bockham, Queen's Gardens; Dublin.—Mr. J. J. McQuillan, 36 Capel Street; Dundee.—Phins Ltd., 29 Nethergate; Folkestone.—Mr. W. Allsworth, 16 and 18 Guildhall Street; Hastings.—Mr. W. H. Mozley, 4 York Buildings; Leicester.—Mr. Frank Berry, 3 Loseby Lane; Liverpool.—Mr. C. Lucas, 17 Houghton Street; London.—Messrs. H. Osman, 166 Aldersgate Street, E.C.; Newport, Mon.—John Hall (Tools) Ltd., 81 High Street; Reading.—Mr. W. J. Sargent, 44 West Street; Swansea.—John Hall (Tools) Ltd., 8 Gower Street; York.—Messrs. J. H. Shouksmith & Sons, 132 Micklegate.

HEAD OFFICE AND WORKS :

**DEREHAM, NORFOLK**

## GENERAL NOTICES.

### EDITORIAL.

All Editorial matter should be sent to The Editor, Hobbies Weekly, Dereham, Norfolk. If enclosed with orders or other matter for Hobbies Ltd., it should be written on a separate sheet of paper. Any matter requiring an answer must have a stamped addressed envelope enclosed.

### DESIGN SHEETS.

The presentation Design Sheet is given only with current copies of Hobbies Weekly, and not with back numbers. The designs, however, can be obtained separately, from Hobbies Ltd., price 4½d., post free, or 10d. in the case of double size sheets.

### ADVERTISEMENTS.

All orders and letters respecting advertisements should be addressed either to the Advertisement Manager, Hobbies Weekly, Dereham, Norfolk, or to 30/32, Ludgate Hill, London, E.C.4.

### INDEXES AND BINDING CASES.

An Index for any volume is obtainable for 4½d. post free, and Binding Cases to take a complete set of 26 issues (making the volume) are supplied for 1/6, or sent post free for 1/8. The Cases are in red linen with gold blocked name on the front. The Azabook Binder, to hold 24 copies which you can fix in yourself is 3/3 (3/6 post free) including two dozen fastening staples.

### BACK COPIES.

Back copies are obtainable from the Editorial address given above or from the Publisher, price 2d. a copy, plus postage.

### CONTRIBUTIONS.

The Editor is always pleased to consider suitable articles for these pages, which, if accepted, will be paid for at the usual rates. While every effort will be made to return unsuitable contributions (if stamps for that purpose are sent with them), the Editor does not accept any responsibility for their loss.

### SUBSCRIPTION.

Hobbies will be forwarded by post to any part of the world at the following prepaid rates. Twelve months 13/-, six months 6/6, three months, 3/3. Registered for transmission by Canadian Magazine Post

## HOBBIES LIGHTNING POLISH

for the Amateur

Any woodworker can give his work a highly polished surface with Hobbies Lightning Polish. It is simple to use and results are guaranteed. A 10d. bottle covers a number of jobs and gives a professional finish to any natural wood.

Give your woodwork  
a polished surface

A complete Polish Outfit for the amateur price 2/3 (postage 6d.), contains polish, woodfiller, boxes of stain, glasspaper, rubber and full instructions. A sample bottle with instructions and rubber for 10d (postage 3½d.).

Obtainable  
from  
Hobbies  
Branches  
and all lead-  
ing iron-  
mongers. By  
post from  
HOBBIES,  
Ltd.,  
DEREHAM  
NORFOLK.



### FREE

A leaflet on  
Polishing for  
Amateurs is  
free on  
application  
to Dept. H.I.  
Hobbies, Ltd.,  
Dereham,  
Norfolk

## SPECIAL SALE GIFT VOUCHER

for Overseas Readers

Everyone who spends 10/- and over in the Hobbies Sale will receive a special extra gift according to the amount of his purchase. All you have to do is to sign this Voucher and send it with your order and money to Hobbies Ltd., Dereham, Norfolk. Valuable and practical gifts will be made according to the value of goods you buy. Overseas customers are allowed to send in orders up to July 31st, 1937. State the value and number of your Money Order below.

Order Value.....

Name .....

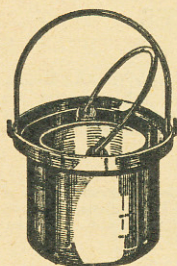
**Gifts! Gifts! Gifts!**

### REPLY COUPON

One of these small Coupons and a stamp for 1½d. must be attached to your letter to the Editor, if you are enquiring about anything which demands an answer. Cut the Coupon out and put it in with your letter which should be addressed to the Editor, Hobbies Weekly, Dereham, Norfolk



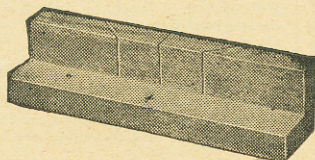
# PICTURE FRAMING TOOLS



## GLUE KETTLE

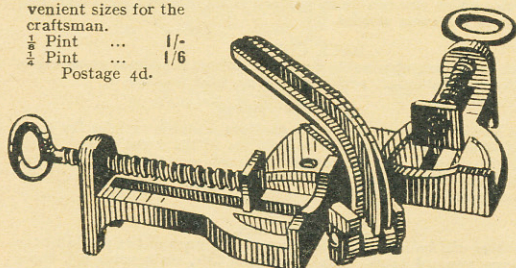
If you still prefer "glue-pot" glue, you will like this handy kettle. All steel in two convenient sizes for the craftsman.

1/2 pint ... 1/-  
1 pint ... 1/6  
Postage 4d.



## MITRE BLOCKS

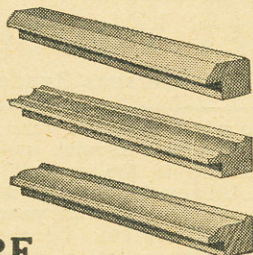
A hardwood block, 9in. long. Just the thing for small mouldings, price 9d. post 4d. Other mitre blocks with metal saw guides, 2/6 and 3/6. Postage 6d.



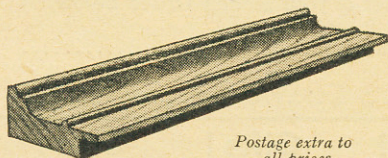
## MITRE CUTTING TOOL AND CRAMP

The ideal mitre-cutting tool. The moulding is held in right and left hand cramps. The long metal saw guide ensures a clean accurate mitre. The No. 1 Tool takes mouldings up to 4 1/2 ins. wide and costs only 10/6, post 9d. The No. 2 cramp is of heavier construction all round, and takes moulding up to 5 1/2 ins. wide. Price 17/6, post 1/-.

A few of the special picture frame mouldings supplied by Hobbies. These are in oak, 1/2 in. wide and cost only 1 1/2 d. per ft.

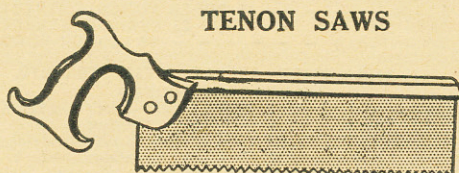


## PICTURE FRAME MOULDING



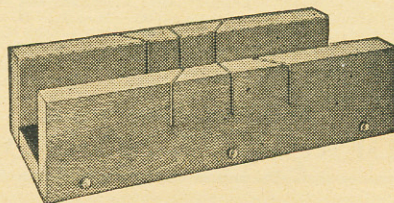
Postage extra to all prices.

An attractive Oak Moulding in three sizes. 1in. wide 2d per ft. 1 1/2 ins. 3d. 2ins. 3 1/2 d. per ft.



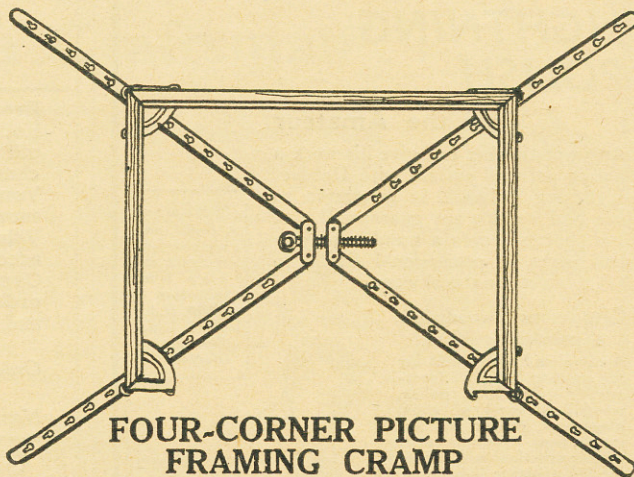
## TENON SAWS

For the small mitre blocks a roin. saw is required. This with iron back costs only 2/6, whilst a 12in. 2/9. A 4in. saw of superior quality suitable for the mitre cramp costs 4/6, postage 6d. on each.



## MITRE BOX

The moulding is laid in the trough between the sides. This tool can be thoroughly recommended. In selected hardwood. Price 2/3, post 6d.



## FOUR-CORNER PICTURE FRAMING CRAMP

With a tool like this you can glue up all four corners at once. The pressure is applied by one central screw, so that it is equally distributed to each corner. In two sizes No. 1 for frames up to 38 by 26ins. Price 13/6. No. 2 for frames up to 52 by 33ins. Price 17/6. Postage 1/- on either.

You can buy all your requirements for Picture Framing from Hobbies Branches and Agents, or direct from Hobbies Limited, Dereham, Norfolk.